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MYRA WIGGINS

EARLY MORNING

PHOTO-ERA

The American Journal of Photography

VOL. XVII SEPTEMBER, 1906 No. 3

KATHERINE BINGHAM SUNRISE ON THE ATLANTIC

WOMEN IN PHOTOGRAPHY

RICHARD HINES, JR.

THE American woman has long since taken her place in the world of business, in the realm of literature, in the broad domain of science, as well as in educational and other lines of human activity; nor has the field of photography been overlooked by those American women who by innate talent have found themselves peculiarly fitted for the exploitation of this the latest and most progressive of the art-sciences.

One of the first American women to turn to photography as an outlet for her talent in an artistic direction was, perhaps, Miss Catherine Weed Barnes, now the wife of an Englishman, Mr. H. Snowden Ward, and residing abroad. This was twenty years ago. Probably at that time the women who were interested in photography could have been counted on the fingers of one hand; while now, if even those who have made a success of it were marshalled together, there would beyond doubt be a goodly number of them; for almost daily there is reported the fact that another woman photographer "has arrived," and either the technical or lay press tells of her beginning and how she climbed the ladder of success.

In many instances it is the same old story: the woman comes into possession of a camera; first it amuses her; then she becomes more deeply interested and takes the matter seriously; she discovers that she has talent in the direction of art; she shows her pictures to some competent judge and is encouraged to con-

MRS. CHARLES S. HAYDEN SERMON TIME

tinue her work; then follows study along artistic and technical lines; her pictures are accepted to be hung on the walls of the salons, and she eventually achieves the reward of her efforts. Many women, when they discover themselves in photography, have entered the professional ranks, where they have taken places alongside of the foremost men in the profession. Others continue purely as amateurs, but they make their cameras pay the expenses of their art training and their trips abroad.

Among those in the professional ranks who have achieved success, and some of them fame, are Mrs. Kasebier, Zaida Ben Yusuf, Mary Carnell, Mary Devens, Mrs. Caleb Keene, Mrs. Elizabeth Flint Wade, Sarah Holm, Mary Vaux, Eva Watson Schutze, Adelaide Hanscom, Mathilde Weil, Jessie Tarbox Beals, Nellie

HELEN P. GATCH THE LACE CAP

Coutant, Clarissa Hovey, Katherine Bingham, the Misses Allen, Gerhardt Sisters, Shelby Sisters, Miss Reineke, Frances Johnstone, Alice Austin and several others.

The women who have been successful as amateur photographers are numbered by hundreds, but among those who are best known may be mentioned Mrs. George A. Stanbery, Katherine Stanbery, Myra Wiggins, Mrs. G. A. Barton, Mrs. W. W. Pearce, Virginia M. Prall, Sarah C. Sears, Marion Silverston, Eleanor W. Willard, Agnes Warburg, Bessie Stanford, W. and G. Parrish, Mary H. Mullen, Mrs. Charles S. Hayden, Mary G. Huntsman, Helen P. Gatch, Jane Dudley, Helen W. Cooke, Mrs. C. E. Colman, Mrs. Carine Cadby, Mrs. Louise Birt Baynes, Fedora E. D. Brown, Margaret L. Bodine, Nina F. Lewis, Alice Boughton, Jeanne Bennett, Mrs. Rowland B. French, Annie W. Brigman, Emma J. Fitz, Emma Farnsworth, Mrs. Marion Stark Gaines, Mrs. Walter Griffin and others.

There is no more suitable work for woman than photography, whether she takes it up with a view of making it a profession or simply as a delightful pastime to give pleasure to herself and to others. She is by nature peculiarly fitted to the work, and photography is becoming more and more recognized as a field of en-

THE MISSES ALLEN EARLY SPRING

deavor peculiarly suited to her. There is scarcely a woman who has not some inborn artistic feeling, latent though it may be until brought out by study and training. Nevertheless, it is there, and its presence, in greater or less degree, is promise of success in photography. Cleanliness and patience are two of the cardinal virtues necessary to the successful pursuit of photography. The first seems to be a God-given attribute to most women; while if they have not the latter in sufficient amount, it is a virtue that can be cultivated. The light, delicate touch of women, the eye for light and shade, and their artistic perception, render them admirably fitted to succeed in this work.

MRS. ROWLAND B. FRENCH — SOUTHERN CHURCHYARD

Success, however, is not to be attained by simply "pushing the button" and leaving others "to do the rest." That is one of the fallacies of photography which is responsible for so much bad work and so many dissatisfied amateurs. There is no royal road to success in photography any more than there is in any other branch of human effort. Success is attained only by careful, painstaking manipulation and study.

Some eight or ten years ago the writer delivered an address on the subject which heads this article before the Art League of his home city, and therefore, for a period extending over a year, he had much correspondence with the women who were that long ago accounted prominent in photography, and the publication of extracts from that correspondence will not be out of place here in telling what those women achieved and how they achieved it.

Mrs. Ward, already mentioned in this article, took up photography in 1886, the suggestion that she should make it her specialty having first come from her mother. Success was not slow to come to her, for she had prepared herself by long years of study. Her talent was more and more recognized. An attic was her first studio, and a bathroom served as the dark room. She worked patiently and perseveringly, and finally joined the Society of New York Amateur Photographers, where she read so many practical papers that invitations came pouring in upon her from other clubs to give them the benefit of her experience. She

was the first woman whom these societies had the good sense to acknowledge, and she proved, as so many other women have done, that it is the first step that counts. She was one of the editors of the *American Amateur Photographer* for a number of years, resigning that position in 1894, and is now a member of many of the most exclusive photographic societies of America and Great Britain. She read a paper on "Amateur Photography" at the World's Fair, Chicago, and was a member of the Liberal Arts Board of Judges, being the only woman representing photography there. Mrs. Ward is not alone interested in photography, but in literature as well, and is said to be a very successful lecturer. Though now residing with her husband in England, it was as an American that she achieved her success in photography and practically blazed the way for other American women who have so worthily followed in her footsteps.

Miss Frances Johnstone, of Washington, is another woman photographer who has achieved success both professionally and artistically. She may be characterized as the official photographer to the White House, and her pictures of members of the President's family are marked by great delicacy of tone values and a full knowledge of composition. Miss Johnstone was highly honored during the Louisiana Purchase Exposition, held at St. Louis, being the only woman member of the board of judges of the artistic photographs displayed there.

Another Washington woman photographer who has taken high rank, and whose work has been commended by more capable pens than mine, is Miss Virginia M. Prall. There is a deep religious feeling pervading many of Miss Prall's pictures that I have seen reproduced, which appeals strongly to the beholder.

Mrs. Myra Wiggins, of Salem, Ore., is another successful worker who has made her camera pay for her artistic training and tours abroad. She is well known by her many genre pictures, which are always pleasing and interesting.

Misses W. and G. Parrish, of St. Louis, members and officers of the Salon Club of America, have also achieved great success of recent years, and Miss Mary Carnell, of Philadelphia, ranks with the foremost men in the profession as a portrait artist and delineator of character by means of the camera. Her portrait of Mayor Cutler of Niagara Falls, published in the August PHOTO-ERA, is full of character and technical excellences.

Mrs. W. W. Pearce, of Waukegan, Ill., has made a success in her specialty of photographing children, and her little models are familiar to all readers of the more prominent photographic journals, where her work is frequently reproduced.

Mrs. Jessie Tarbox Beals is a woman photographer of great energy and tireless perseverance, who has made a great success commercially and has accomplished many things in a photographic way which even the hardier men have hesitated to undertake.

Mrs. Helen P. Gatch, of Salem, Ore., has also been very successful in her photographic work, being particularly happy in her genre studies, which always have a story to tell, and in which the telling is well and artistically done.

LOUISE BIRT BAYNES

THE PRICE OF LIFE

MARY G. HUNTSMAN FEEDING THE CHICKENS

That other women who contemplate photography may not enter into it "lightly or unadvisedly" any more than they would into the matrimonial state, a few extracts from letters received some years ago from those who have succeeded will not be amiss here.

Miss Emma Justine Farnsworth, of Albany, N. Y., says that to make a success of photography one should have a keen artistic temperament and endless patience, for, like any other branch of art, photography requires close application, and the road is long.

Miss Zaida Ben Yusuf says: "I took up the camera at first for amusement, but only for a short time, as I was about to go abroad. I showed one or two of my very limited number of prints to Mr. George Davison, London, and he at

JANE DUDLEY HUNGRY AND THIRSTY

once advised me to go ahead and make more, as he said that what I had done indicated the spirit of the new school of photography. Shortly after my return from Europe I arranged my studio and started to work seriously, and I find that the indications are that the better class of people are quite ready for a higher and broader quality of photographic portrait than most professionals will admit." These words were uttered eight years ago, and in the light of subsequent events they were almost prophetic.

There is no doubt that in the coming years women will have a large part in the artistic and pictorial development of photography; and that many have already taken their places in the front ranks alongside of the most noted men in the profession cannot be denied.

SARAH HOLM DECORATIVE PORTRAIT

"OZOBROME," A NEW CARBON PROCESS

E. W. FOXLEE

MR. THOMAS MANLY, the inventor of the "Ozotype" process, has recently perfected a new method of producing carbon prints, possessing very distinct claims to notice; namely, first, that prints are obtained indirectly by the exposure of bromide paper to light; in other words, from a bromide print or enlargement; and, secondly, that the carbon copies are obtained without exposure to light. Since the patent specification of this process, "Ozobrome," as Mr. Manly proposes to call it, has appeared, the process is thus open for discussion.

Carbon printing, as everybody knows, was invented by Sir J. W. Swan, and published by him in 1864, and it is a little strange, considering the great advance made in the various processes of photography since that time, that the carbon process remains the same and is worked in practically the same way as it was forty years ago. One of the great obstacles to the more universal use of this process is that a double transfer of the picture is necessary if it is to show the "right way about"— that is, as regards right and left. But such is, of course, necessary, unless a laterally reversed negative is used in the printing. Also day-

light is absolutely necessary for the exposure of a carbon print. Both of these drawbacks are obviated in the new process.

Warnerke's Silver Pigment Process

The "Ozobrome" process is associated with the bromide paper process — an idea, let me say at once, which is by no means a new one. A quarter of a century ago the late Mr. Leon Warnerke discovered that a gelatinous bromide of silver film, developed with pyrogallic acid, became analogous in character to a carbon one that had been exposed to light; that is, the parts acted upon by light had been rendered insoluble in warm water. This formed the subject of a patent, No. 1436, which he obtained in 1881. One of the methods described in the specification is to mix a pigment with the bromide emulsion, spread it on paper, and dry. Then expose under a negative and develop in the usual way for bromides. This done, a piece of single transfer paper is squeegeed upon it and then the picture is developed in warm water, as if it were an ordinary carbon print. In this way a carbon picture is obtained on a silver image. The latter could then be got rid of by solution in perchloride of iron, leaving only the carbon behind. In this way a carbon picture is obtained with only the exposure to light required for a bromide. Warnerke's process has been reinvented more than once, in a modified form, and within the last couple of years in Germany. The modification in this instance was the immersing of the transfer paper in a solution of the bichromate of potash before applying it to the bromide picture. Nothing practical, however, has come of these processes, and that can readily be understood when the difficulty is considered of developing a bromide picture to the right depth on a dark surface like carbon tissue.

The Two Methods of "Ozobrome" Printing.

Mr. Manly's new process, which he has patented, is quite distinct from the above, and is based upon an entirely different principle. In this process a bromide picture which may be a direct print from the negative, or an enlargement, is produced in the ordinary way by artificial light. After it has been developed, fixed and washed, it is put into a five per cent solution of formalin for five minutes to harden the film and render it insoluble in warm water. It is then washed to free it from the formalin. It may then be used at once, or it may be dried and used at any future time. Bromide prints already in existence, if treated with the formalin, may be utilized.

Here is the procedure: if the picture has been dried it is put into cold water and a piece of the pigment plaster — the inventor says the ozotype plaster alone is suitable — is taken and immersed till limp in the patent "pigmenting solution." The two are then squeegeed together and allowed to rest for half an hour or so. The "pigmenting solution" is, according to the specification, of potassium bichromate with a mixture of potassium ferricyanide and potassium bromide, to which may be added a small quantity of alum. The print and plaster

ADELAIDE HANSCOM THE BIRD'S NEST

having remained in contact for the necessary time, there are then two methods of procedure open to us. The first is as follows: the picture, with its adherent plaster, is put into warm water at a temperature of 100° to 110° F. After a short time the pigment will be seen exuding from the edges, when the plaster can be stripped off and the unaltered gelatine washed away, just as in the ordinary carbon process. Here we get a non-reversed carbon picture on top of the silver one, the color of which has been changed from a black to a yellowish brown by the action of the carbon sensitizing solution. The silver image, if desired, can then be got rid of by dissolving it away with the usual ferricyanide and hypo reducer, or with a solution of perchloride of iron, as suggested by Warnerke.

The second method of working, which seems to me to be far more commercially valuable than the first, is slightly more trouble, but possesses very decided advantages. Instead of putting the picture with its adherent plaster direct in warm water it is put into cold, the plaster stripped off, and at once squeegeed on to a piece of single transfer paper. It is then placed between blotting-paper and allowed to rest for ten minutes or so, as in the usual method of working the

MRS. W. W. PEARCE FIRST STEPS

carbon process by single transfer. It is then developed in warm water in the usual way. Here, again, we get a carbon picture which is not reversed as regards right and left, but without a silver image beneath it. The bromide original, which has been changed from black to a yellow brown, is washed to free it from the chemicals, and can then be redeveloped with any of the ordinary developers for bromide papers, and the print then becomes equal in appearance to an original bromide. What is more, it can be used again to produce other carbon pictures. Mr. Manly tells us that the same bromide original will continue to serve so long as the paper foundation will hold together.

As to the theory of his process, the inventor states in the patent specification: "In the process forming the subject of my invention the ferricyanide and haloid salts first bleach or halogenise the silver image, and the reducing action, thereby set up, is taken advantage of to decompose the bichromate salt, rendering the gelatine insoluble. The bichromate salt has, therefore, only a secondary action, and is not affected by the silver image. This is shown by the number of prints that can be produced from a single bromide silver print."

A Cheap and Quick Route to Carbon Enlargements

No doubt many will be curious as to the quality of the carbon pictures produced by this method. All I can say, from my own experiments, is that they are just ordinary carbon pictures, from which they cannot be distinguished. With a good bromide original, the carbon prints I have made have been quite as good as if they had been printed in carbon from the negative itself. If this new process fulfils the expectations of its inventor, and from my limited experiments I see no reason why it should not, it will prove a great acquisition to workers of carbon. Almost every one is now familiar with the making of direct prints and enlargements on bromide paper by artificial light, and when once a bromide picture is obtained many carbon ones may be made from it without the action of light.

In the production of carbon enlargements the process should prove of great value. In the method at present followed a transparency has first to be made from the negative, and from that an enlarged negative. These two operations involve considerable time and there is a certain loss of quality entailed. When the enlarged negative is obtained the prints have to be made from it, which in winter is a long operation, particularly if a number are required. By the new method the bromide, contact print, or enlargement is made direct from the original negative, and, once obtained, a good number of carbon prints may be made from it without the aid of light.

Working Instructions for the "Ozobrome" Process

The following are the instructions issued in a preliminary circular of the "Ozobrome" process, from which, with the inventor's permission, we quote: —

Materials Required.— A bromide print, a piece of pigment plaster, and patent pigmenting solution. Both bromide and gaslight prints are suitable. Ozotype pigment plasters are alone suitable. Every trace of hypo must have been thoroughly removed from the bromide print.

To harden the gelatine surface, soak the print in a ten per cent solution of formalin for five minutes, and wash for about ten minutes. Of course, the print may be dried and kept any time after hardening. Pour the working pigmenting solution into a porcelain dish, somewhat larger than the bromide print, and place another dish containing cold water alongside of it. Take the bromide print and immerse it in the dish of cold water, face upwards, and remove any air-bells.

MISS REINEKE & CO.
PORTRAIT

JESSIE TARBOX BEALS IN JAPAN

Take the pigment plaster and immerse it in the pigmenting solution, removing any air-bells. As soon as the pigment plaster becomes limp or saturated, transfer it to the dish of water, and place it face downwards upon the bromide print which is already there, and immediately bring the two papers clinging together out of the dish and squeegee them into contact with a roller squeegee upon some flat, hard surface, such as glass or zinc. (It is advisable that the thinner of the two papers should be uppermost when squeegeeing.) Then hang them up, or place upon blotting-paper till ready for development.

W. AND G. PARRISH THE WOOD FÄERY

N.B.— The operation of bringing the saturated plaster into contact with the print under the water should be done as quickly as possible (say, four or five seconds), otherwise some of the pigmenting solution contained in the gelatine film will be lost by diffusion in the water.

The water should be changed after each print has been manipulated.

Leave the bromide print with its adhering plaster for about half an hour or forty minutes. At the expiration of the specified time there are two methods which can be adopted to produce pigmented pictures.

Ozotype-Ozobrome

Method I.— This is the non-transfer or ozotype method of pigmenting in which the bromide print itself is made to form the support of the picture, and is recommended for artistic work on the various grades of rough bromide paper on the market.

The prints by this method may be more easily worked upon with a brush than those by Method II.

Manipulation for Method I.— Immerse the adhering papers in hot water at about 105° or 110° F. Feel at the corners whether the papers are likely to separate easily. If so, remove the paper backing of the pigment plaster with a steady, unbroken pull, leaving the print in the water and throwing away the plaster backing. After a minute or two place the print upon a sheet of zinc and remove all the soluble gelatine by moving the print up and down in the warm water, finishing the development by pouring the hot water upon the print with a small mug. Then wash the print in cold water for a few minutes.

Should any of the black silver deposit remain under the gelatine in the very deep shadows, it may be easily removed by the Howard Farmer reducer, after which wash for fifteen minutes.

Carbon-Ozobrome

Method II.— This is the transfer or carbon process in which the image, impressed upon the plaster by contact with the bromide print, is transferred to another support, leaving the original bromide print available for further transfers.

Manipulation for Method II.— Instead of placing the adhering papers in hot water, they are plunged into cold water, and after about one minute's soaking the papers can be easily separated by a steady pull from a corner. In this case the pigmented gelatine of the plaster will adhere to its own support, leaving the bromide print uncovered and changed from black to a light brown color. As the bromide print may be redeveloped and used again, it is well to place it in a separate dish of cold water at once, preparatory to washing.

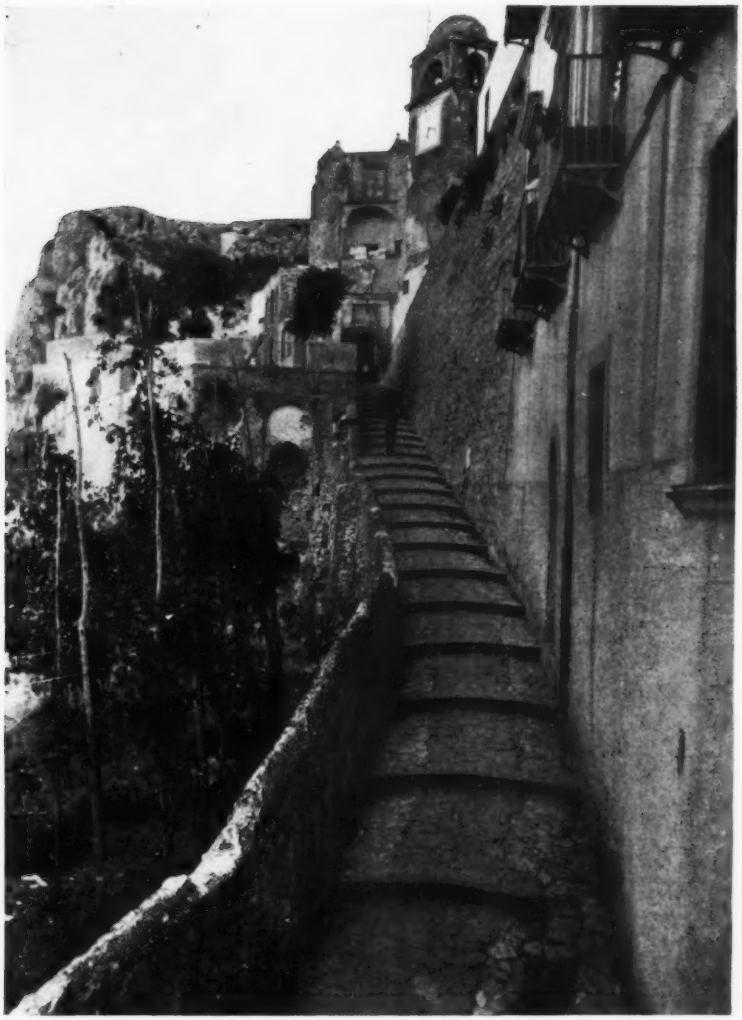
The plaster now represents the exposed tissue in ordinary carbon printing, with the immense advantage that the image is reversed as regards right and left, thus securing an unreversed picture by single transfer.

Keep the plaster in the cold water face downwards, and slide a piece of single transfer paper, gelatine surface upwards, underneath it.

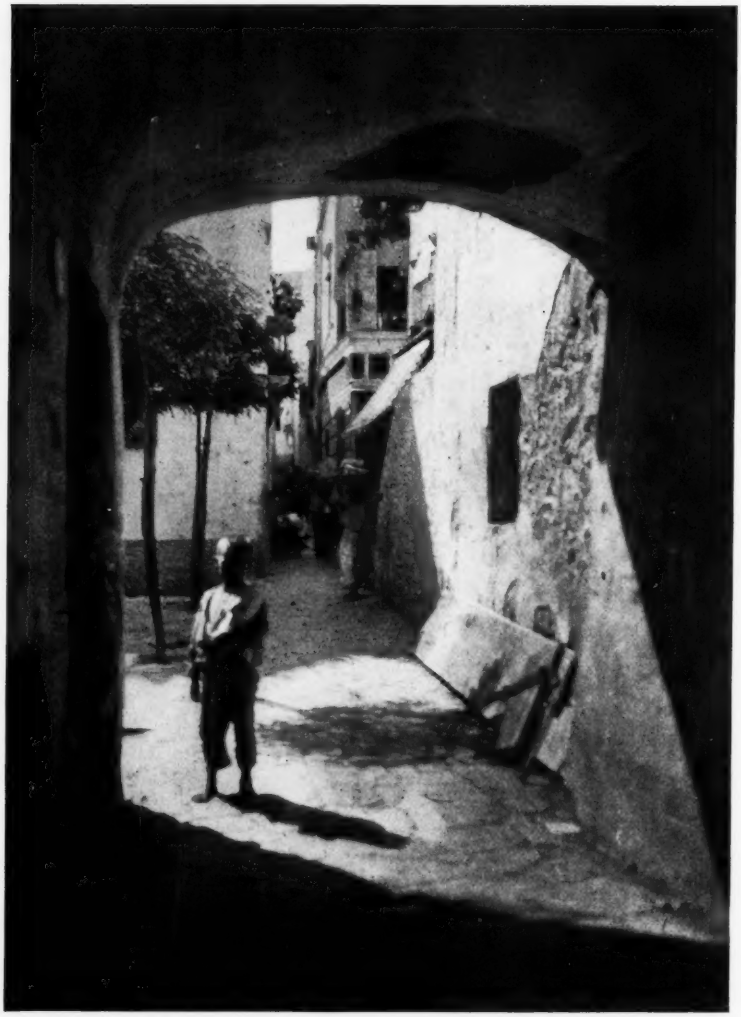
After about thirty seconds, bring the underlying transfer paper into contact with the pigment plaster, and lift the two papers clinging together out of the water, place them on a sheet of zinc or glass, and squeegee them into contact, exactly as in carbon printing. Place between blotting-paper under slight pressure, and after fifteen or twenty minutes develop as in Method I.

After separation from the pigment plaster, wash the print in cold water for half an hour, when it will be ready for redevelopment. Place the thoroughly washed print in a porcelain dish and pour over it a bromide developing solution, such as amidol, hydroquinone, etc.; then again wash thoroughly for half an hour.

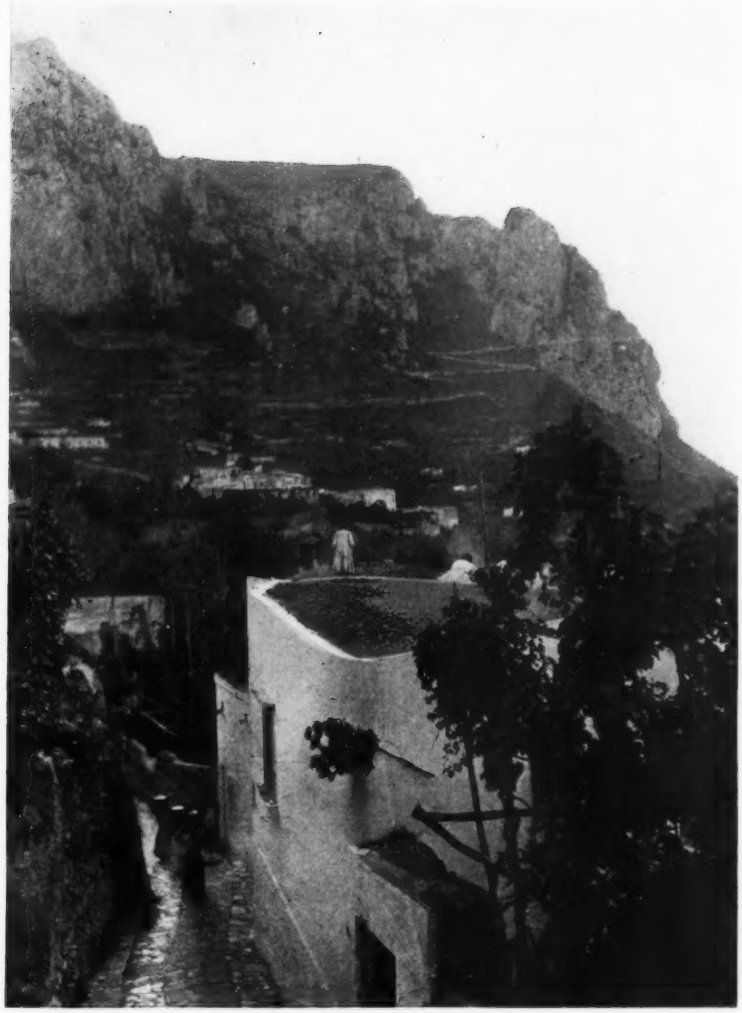
The bromide print is now restored to its original condition and efficiency, and can be used again for transfer printing. In fact, with care, as many carbon prints can be made from one bromide print as the strength and substance of the original bromide paper will allow.— *British Journal of Photography.*



ZAIDA BEN YUSUF
ENTRANCE TO THE VILLAGE OF CAPRI
TAKEN WITH NO. 2, SERIES B, GOERZ LENS



ZAIDA BEN YUSUF
CAPRI — SUNLIGHT AND SHADOW
TAKEN WITH NO. 2, SERIES B, GOERZ LENS



ZAIDA BEN YUSUF
CAPRI — DRYING FIGS ON THE HOUSETOPS
TAKEN WITH NO. 2, SERIES B, GOERZ LENS

ELEANOR W. WILLARD — HOMEWARD AT EVENING

THE EASIEST AS WELL AS THE MOST SCIENTIFIC METHOD OF DEVELOPMENT

GASTON M. ALVES

THE average professional still looks upon the time method of development as "amateurish" and a makeshift; but the real truth is that that system, when rightly applied, is much surer, and much better founded in the practical scientifics of the subject, than is the old one of development by inspection. Indeed, given a miscellaneous lot of exposures, a mere tyro, carefully following directions, will get more acceptable negatives than will an old professional following his common methods of inspection. To make this plain, let us state certain basic facts, all of which have been fully established by the most careful and adequate experimentation. These basic facts are:

(1) The longer an exposed plate lies in the developer the greater will be its density.

(2) The longer it lies in the developer, within practical limits, the greater will be its contrasts.

VIRGINIA M. PRALL
A MEDIÆVAL BELLE

MARY CARNELL CHILD STUDY

(3) All exposures, whether slightly exposed or greatly exposed, provided they all be usable exposures, will reach their proper gradations of light and shade, i.e., their proper contrasts, in the same length of time, the temperature and strength of solution of the developing agent being the same.

(4) The proper contrasts, or natural gradations of light and shade, in any negative are of prime importance for an accurate and pleasing record of the subject. However, the density, while important, has only a secondary value, its defects being largely cared for and cured in the selected methods of printing.

To reiterate: the proper contrasts are all important for the truthful representation of the subject; while an imperfect density may be successfully cared for in the after work.

Bearing the foregoing facts in mind, let us now consider what happens under the two comparative methods of development.

HELEN W. COOKE THE LAUGHING BOY

First, as to the old method by inspection: no man can properly distinguish when a negative has reached its right contrasts in the dark room. Indeed, when a negative has been developed, fixed, dried and held against the light, no man can absolutely tell whether the contrasts are just right. The final and sure test is *to make a print*. Now, as the most experienced worker in making the negative cannot judge of the proper contrasts, there is nothing left to him but to go solely by the density; and this he may easily do. If the exposure of the plate has been nicely timed, and when in the developing he has got his proper density, he will at the same time have gotten the proper contrasts, and all will be well. But the ideal exposure with all of us is an accident, and consequently in our developing we must continually deal with greater or less aberrations. If the worker by inspection is developing an underexposure, going by density, he will be almost sure to leave the plate in too long and thus get a more or less over-contrasty negative, often running into such contrasts as will yield only a harsh "chalk and

CARINE CADBY
FLOWER STUDY

FEDORA E. D. BROWN EDGE OF THE POOL

soot" print. Let us now follow the worker with the same underexposed plate, under the time method: at the normal time he will lift the plate, rinse it, and place it in the hypo. He will have a thin negative, but if the plate has not been hopelessly underexposed it will yield, under the proper printing, pleasing and truthful prints — provided, of course, that the lighting of the subject or landscape has been good.

Now, as to overexposures: the worker by inspection will be almost sure to take out his plate too soon, resulting in a negative which will yield only lifeless prints. The worker by time will leave his plate for the normal time, and the negative, though quite dense, will yield prints of correct contrasts.

It will be seen that the worker by inspection will get negatives of nearer uniform density, but more or less unnatural contrasts in the resulting prints, while the worker by time will get negatives of varying density, but uniform prints. And as the prints are the end, and the negatives are only means to the end, the lesson is obvious.

In what follows I propose to deal only with the principles of time development and certain details of the work, which I have found satisfactory.

It must be obvious to every one that the time of the development of a plate depends solely upon the strength of the chemicals used, and upon the temperature. With a certain strength solution and a certain temperature, the proper

time is gotten by experiment or test. When this time is once gotten by test, it will always be the same under like conditions of chemicals and temperature. Also bear in mind that this time, when once gotten, does not vary with correct, under, or over exposures, so that the exposures be usable; for under the foregoing fact (3), all such exposures reach their proper development in the same time. Now, it is plain that we may always control the exact strength of our solutions, but it is not always convenient to work under the same precise temperature of the solutions. Hence we need to know what alterations in the time we should make in order to meet slightly varying temperatures. We will assume that a temperature of 70° F. is the best for development. However, it will come within good practice to work within the limits of 60° to 76°, if convenience demands. Let us now assume that with a certain strength solution, at a temperature of, say, 70°, we have found by test that it takes, say, just five minutes to properly develop a negative which will yield a print with the natural balancing of the lights and shades, i.e., contrasts. At another time, with the same strength solution, but with a temperature of, say, 66°, the question is, How much must we increase our five minutes in order to get a correctly developed negative? The key to this question will be given in the following:

Taking 70° and 5′ of time as a basis, it will be sufficiently accurate within the above limits of 60° to 76° to allow a quarter of a minute increase of time for every degree decrease of temperature from the 70 to 60. Consequently, we solve the above question by allowing four quarters of time increase; that is, we have six minutes as the answer. Had the temperature of solution been greater than the 70°, then there would have been a quarter of a minute decrease of time for each increase of degrees from the 70 to 76. All of the foregoing is very simple, and may be easily carried in the mind, but to make it plainer, let us tabulate it:

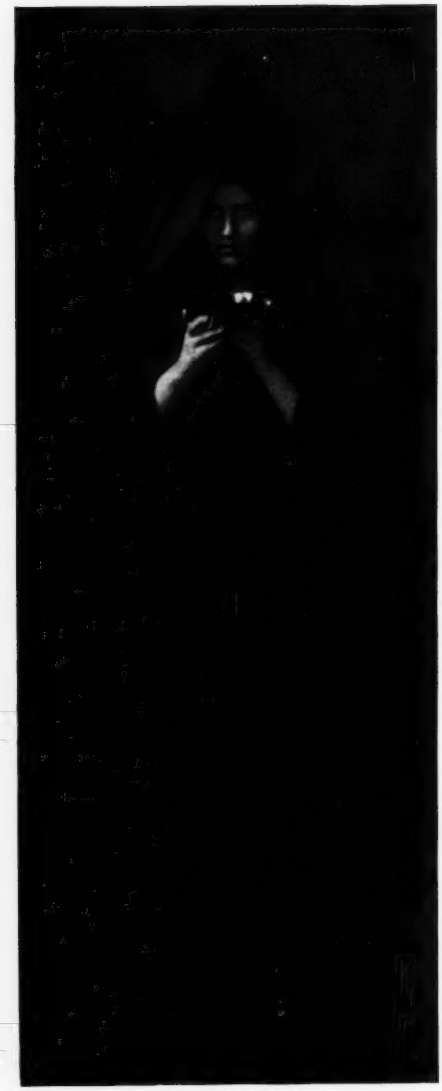
Minutes	Degrees	Minutes	Degrees
3½	76	5½	68
3¾	75	5¾	67
4	74	6	66
4¼	73	6¼	65
4½	72	6½	64
4¾	71	6¾	63
5	70	7	62
5¼	69	7¼	61
		7½	60

The reason I have a time of five minutes to 70° is because I find that time just about right — time enough to do all things in order, and not too long to be tedious. It carries with it a rather "soft" solution — with me, one and a half grains of pyro per ounce; under your conditions the amount of pyro may somewhat vary. *Make your own test.* And in making your test, do not be satisfied with a mere pretty negative. Let a *print* be the test for contrasts.

MISSES BODINE AND LEWIS

SECOND AMERICAN SALON

A MORNING'S CATCH



KATHERINE BINGHAM
THE ANGEL OF THE DARKER DRINK

MRS. WALTER GRIFFIN THE VELVET GOWN

In timing, the second hand of your watch need never be bothered with. You can sufficiently estimate the quarters by the minute hand.

The foregoing temperatures are to be taken as those of your solutions. If the developing-tray be well rinsed with the developing-water, and the room temperature does not vary more than, say, 15 or 16 degrees from the solution, in the short time of developing, the slight change in temperature will be inappreciable. The foregoing system calls for a timepiece and a thermometer. There may be times, away from home, when a thermometer is not at hand, or where you may have to deal with different developing-agents. What are you then to do? In this case, I make a special exposure for the purpose and develop it per judgment. If I find it right, I develop all of the exposures by its time. If, however, I find it slightly too contrasty, I give less time to the other plates; if too dull and flat, more time. Using this method as a test, one can almost always hit it off right the next time.

The method of development given above is very simple — much easier to carry out than to tell about. It is the most scientific, the easiest and the surest, for both professionals and amateurs.

CLARISSA HOVEY FAIRY TALES

ONE WAY OF KEEPING MOUNTED PRINTS FROM CURLING

DAVID GRAY ARCHIBALD

PRINTS mounted on any but very heavy, or, in some cases, very large cards in proportion to the print, will draw the card mount into a curved shape as they dry. Often it is not advisable or even possible to use very heavy stock, and often the thin mount will buckle. This is truer of wet mounting than dry; but most mounting is done wet, therefore I shall refer especially to that way when giving my plan. It works either way.

The cause of the curling is the drying out of the water in the prints and consequently of their shrinking. The print in shrinking "pulls" the mount around. If you put them under pressure you prevent the pulling, but how about the print? What happens to it? Nothing, if you put four pieces of cardboard around it, so that the pressure comes at the sides and not on the face of the print.

MARY MULLEN PORTRAIT

If you are handling a number of regular sizes you can make ready for use at any time a supply of cut-outs of cardboard with the openings of a size large enough to allow the print to be free.

Pile the prints and cut-outs alternately one on top of the other, and place a weight on top of the whole pile. This weight may be a lot of old plates wrapped in paper, or a board can be placed on top of them and weighed down with flat-irons. They can also be placed in a letterpress. It takes a little more time this way, but the results are better.

For thin card stock you should mount a piece of paper or card stock on the back at the same time you mount the print on the face. This will keep the mount flat. Put the paper on wet and paste thoroughly, allowing the paste to soak in well before mounting.

PHOTOGRAPHING AN ECLIPSE OF THE SUN

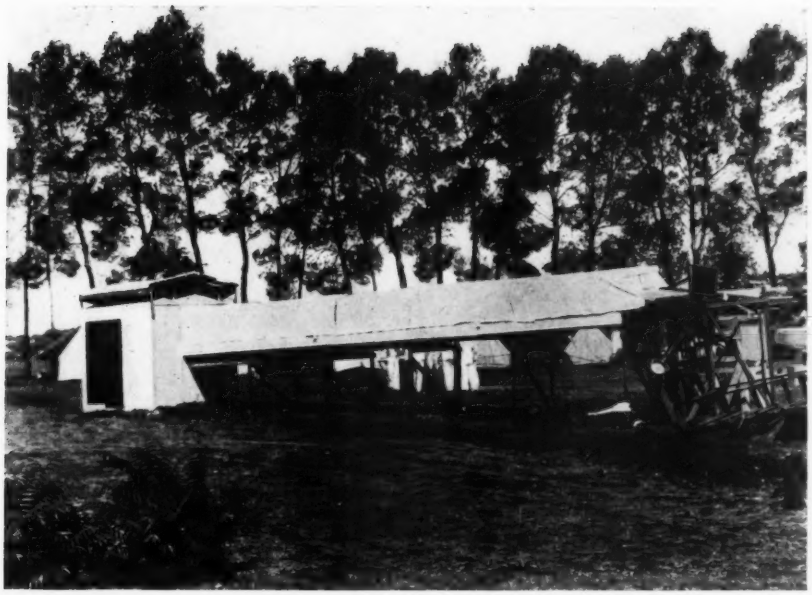
C. H. CLAUDY

(Illustrated by the Writer)

IT is an unusual complaint to make of a subject photographic that it is too well lighted. Yet that is exactly the trouble with those parts of the sun which possess the greatest interest to astronomers and physicists,— the corona, the chromosphere, the photosphere, and the solar prominences. These phenomena are completely obscured to human vision and to the camera by the intense light of the sun. If a long exposure is given in photographing the sun, halation hides them; if a short exposure is tried, they have not light enough to impress the plate in the face of the brilliant light of the main body of the sun. So astronomers patiently wait for the moon to get between the sun and the earth and cut off most of the light, when, in the few seconds of total eclipse, they can secure pictures of the wonderful things which happen close to the sun, and study these pictures at their leisure.

Now, eclipses of the sun occur every year, somewhere; but as three fourths of the surface of the earth is water, three fourths of them are visible only from ships at sea. And of the remaining portion of the earth, a large part is too inaccessible, too cold, or too subject to bad weather to make observations a possibility. Consequently it is not more than once in four or five years on an average that eclipse expeditions are fitted up to study the solar phenomena. And if astronomers depended on the eclipse coming to them there would be an average wait of three hundred years and more between observations, since that is approximately the period between eclipse shadow paths covering the same territory.

In times gone by eclipses were studied by visual observations; and as the time was short, human nature prone to excitement under stress, and the personal equation of the observer a terrible factor in error, nothing of absolute value could be depended on. Now, however, with photography for an aid, visual observations are confined mostly to color, and the camera in one form or another takes the place of the human eye. But what cameras they are! Those who see a small black box, with red bellows and some shining metal, when the word is spoken, would never recognize as cameras the peculiar and clumsy instruments used in solar eclipse work. For instance, one camera used by the Naval Observatory party in Puerta Coeli, Spain, during the eclipse of August, 1905, was sixty-five feet long! It hardly needs to be said that it was built on the ground and looked like an overgrown cow shed. "But how," you ask, "if it was horizontal, on the ground, did the sun get into it?" At the lens end is a peculiar piece of apparatus called a cœlostat (pronounced see-lo-stat), consisting in the main of a perfectly plain mirror, of optically plane glass, highly silvered, which is mounted on an axis parallel to the axis of the earth and slowly but surely turned by clock-work. The image of the sun is reflected by this mirror through the lens and down the tube of the camera, and as the earth turns one way the



FORTY-FOOT CAMERA USED AT GUELMA, ALGERIA, TO PRODUCE THE ECLIPSE PICTURES
ON PAGE 179

clock-work turns the mirror the other way, so that the image of the sun, reflected into the camera, remains stationary. This is essential to the work. The exposures range from a part of a second to a minute and a half, and any movement would blur the image, just as it will in the photographic work with which we are all familiar.

Now I am sure you are wondering why a camera should be sixty-five feet long? Purely and solely in order to get a large picture. You know that the longer the focal length of a lens, the larger the image from a given distance. Now we can't get any closer to an eclipse than the surface of the earth, so to increase the size of the pictures we have to increase the focal length of the lens. So in this monster camera, designed by Mr. W. W. Dinwiddie of the Observatory staff, the lens had a focal length of over sixty feet. It was seven and one half inches in diameter. Will the head boy kindly state the f. value of the lens? No? Well, it is approximately f. 96. Not very fast, judged by hand-camera standards, but quite fast enough, and as fast as it could very well be made, without going to enormous expense; for when lenses get to be eight and ten inches in diameter and made by a great optical firm at special order they begin to cost a lot of money.

Now, as you can very well imagine, setting up this big instrument, adjusting it, and getting it into thorough working order was quite a task. So this, and

the two other big cameras of this expedition,which were at Daroca, Spain, and Guelma, Algeria, were provided with focal plane shutters, and with these pictures of the sun were taken for days before the eclipse, giving very short exposures — a thousandth of a second, or less — and from these photographs, errors could be detected in alignment and focus, as well as if the picture taken was the eclipse itself.

The pictures will show you the construction of the camera from the outside. It was simply a double tube of tar paper and canvas, mounted on frames, and ending in a little house with a movable roof and double doors; for the plates were handled naked, without holders, and held, during exposure, in a permanent frame, an integral part of the camera. Yet as all the work was n't done in the dark, ventilation was needed — hence the open roof.

But you must not imagine that this one type of camera was to do all the eclipse work. It was to take large pictures of the sun, such as are reproduced with this article; but there were many other kinds of cameras, to take smaller pictures. For instance, each station had a fifteen or twelve foot camera, mounted on a large polar axis (see picture), which rotated against the motion of the earth for the same reason and with the same effect as did the cœlostats. Then there were spectroscopic cameras, and polariscopic cameras, a chronospectrographic camera, etc., mostly mounted on the same polar axis with the fifteen-foot instrument, but in some cases utilizing the other end of the axis of the cœlostat to bear a mirror. Some of these instruments were for making pictures of the eclipse as a whole, with the hope of including the long equatorial streamers of the corona; and the other special instruments, like the plain and concave grating spectrographic cameras, were for the production of spectrum photographs of different portions of the eclipse. But I do not want to weary you with technical details of the astronomical side of the expedition. I am sure you will be more entertained with the means at hand there for development.

Imagine yourself about to develop a lot of plates of all possible lengths of exposure, in a hot and stuffy room, in the tropics, in August, where you had no running water to speak of, and where a failure meant a loss of thousands of dollars in time, trouble, and money. Nervous work, don't you think? It is one of the troubles of the eclipse expeditions — this development; for the plates must not be risked a minute longer in a warm climate than can be helped, nor must they run the chances of breakage in transit due to incomplete packing in the dark. So development is made then and there a necessity. Look at the end of one of the dark rooms, as it is in the picture,— one barrel of water, and when that is gone some one must climb up outside and put in some more. And worst of all, at Guelma, the water was so hard that fixation was almost impossible, the greatest difficulty being experienced in clearing the plate. Recourse was finally had to hypo made with distilled water.

The developer? Old and slow metol-hydroquinon; for what was wanted was detail in the high lights — details in the shadows were just what nobody wanted at all. No one photographs an eclipse with the idea of getting details in

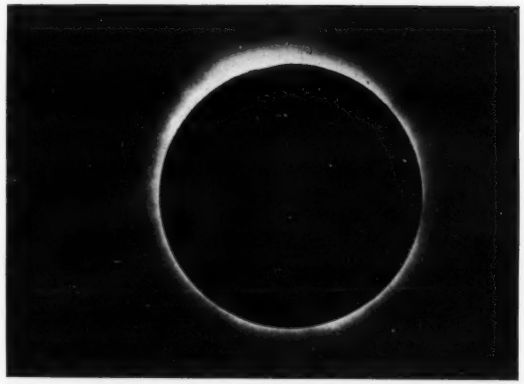
THE ECLIPSE CAMP AT GUELMA, ALGERIA
DARK ROOM, SHOWING WATER-SUPPLY AND VENTILATING-ROOF

the moon — any moonlight night will suffice for that. And the results? Well, here are four, all from the forty-five foot camera at Guelma, made by Mr. Dinwiddie, who, as mentioned before, designed the camera; incidentally it may be mentioned that he designed almost all the rest of the eclipse instruments and made many of the parts himself. Almost without exception the other photographs were unqualified successes, the spectroscopic results being unusually fine and valuable.

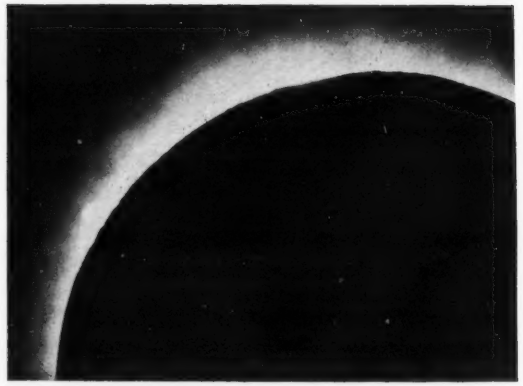
Some one is anxious to ask me the reason for exposures varying from a fraction of a second to a minute and a half, it seeming impossible that such a great range of exposure could be approximately correct in all the plates made. But it must be remembered that in photographing an eclipse what is aimed at is not as perfect a picture of the affair as a whole as could be obtained, but a series of pictures, each one of which shows better than the others some one particular phase of the eclipse. The shortest exposures, therefore, are expected to catch only the brightest part of the corona, close to the sun, and show the solar prominences, as the flames, spouting for thousands of miles into the space about the sun, are called. The longest exposures are to obtain the extreme elongations of the coronal streamers, too faint in light to be recorded with a short exposure. In the long exposures, the inner detail is of course entirely swallowed up in halation and overexposure. The pictures will illustrate this plainly, the one-quarter and the two-seconds plates showing much that the eighty-seconds exposure does not, and it, in its turn, exhibiting the coronal streamers which the first plates do not show at all.

It must not be lost sight of that a great deal is done at an eclipse observatory in a very short time. Eclipses come seldom, last a few minutes at most, and are not infrequently obscured by clouds. Consequently, when astronomers do have a chance at one they make the most of it. Now, machinery cannot be made to work perfectly as soon as it is finished, nor can men be drilled in an hour to do the maximum amount of work in the short period of totality. Consequently, it will surprise no one to hear that these eclipse parties, after setting up and effecting the preliminary adjustments of the apparatus, are drilled in the work as men-of-warsmen drill, going through their performances daily, to signals, exactly as they will go through with them the day of the eclipse — even to the point of handling bare plates in the camera, albeit these plates are not coated. The big cameras end in dark rooms, in which the men work, and the plates are handled bare; that is, without being put in a light-tight plate-holder. They are taken from the box, put in place in the end of the tube, the exposure made, plate removed, placed in the box, another plate inserted and exposed, etc., as long as totality lasts. The loss of enough time to make one plate would be a calamity, hence every precaution is taken to make the most of the precious seconds.

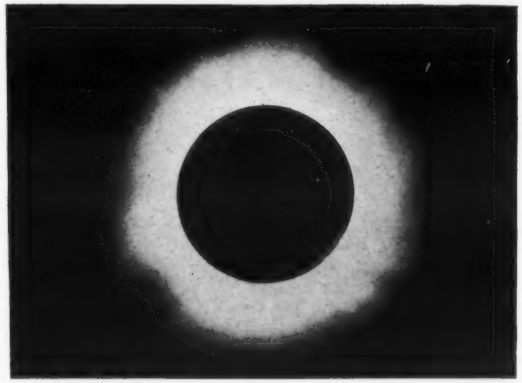
In the same way the instruments must be drilled and tuned up until they work perfectly. They have to be adjusted with absolute accuracy, otherwise all the results would be valueless. The observers must be able to know that their instruments are rotated by the clock with as absolute an accuracy as mechan-



INNER CORONA, FLAMES AND PROMINENCES. TWO SECONDS EXPOSURE



INNER CORONA AND LARGE PROMINENCES



EIGHTY SECONDS EXPOSURE DURING TOTALITY, SHOWING CORONAL STREAMERS AND MARKED ABSENCE OF EQUATORIAL LONG STREAMERS CLOSE TO SUN-SPOT MAXIMUM

ONE-QUARTER SECOND EXPOSURE TEN SECONDS AFTER TOTALITY, WHEN THE SUN JUST BARELY SHOWED. CORONA AND PROMINENCES STILL DISTINCT

Photographs of eclipse made by W. W. Dinwiddie, in forty-foot camera, at Guelma, Algeria, Aug. 30, 1905

PREPARING THE POLAR AXIS, MOUNTING AND ADJUSTING THE INSTRUMENTS ACCURATELY

ical means will allow, for if the clock of the cœlostat on the big camera, for instance, failed by so much as a beat in its work, allowed the image of the sun to move even a fraction of an inch on the plate, all the value of that picture would be destroyed, since it could not then be measured and studied with accuracy.

I presume my readers are curious to know the definite results of the expeditions, meaning what has been learned from the work done. But that cannot be told as yet. There is material for study for months, if not years, in the successful eclipse expedition; and while it can be said that the results, being so good photographically, presage much of value to astronomy, it is difficult to put a name to any definite discovery. In all probability the researches in this eclipse will disclose nothing startlingly new — will probably only serve to confirm existing knowledge on the subject of the sun; but, on the other hand, the spectroscopic photographs will undoubtedly add to the store of facts which have been gathered about our principal luminary. The authorities regard the expeditions as highly successful, and well worth the time, trouble, and money expended to get the photographs. It is in a way a triumph for photography that it is able to do so well and so quickly what was in past times a matter of years of waiting, and many eclipses, to produce.

WILFRED A. FRENCH LUXEMBOURG GARDENS, PARIS

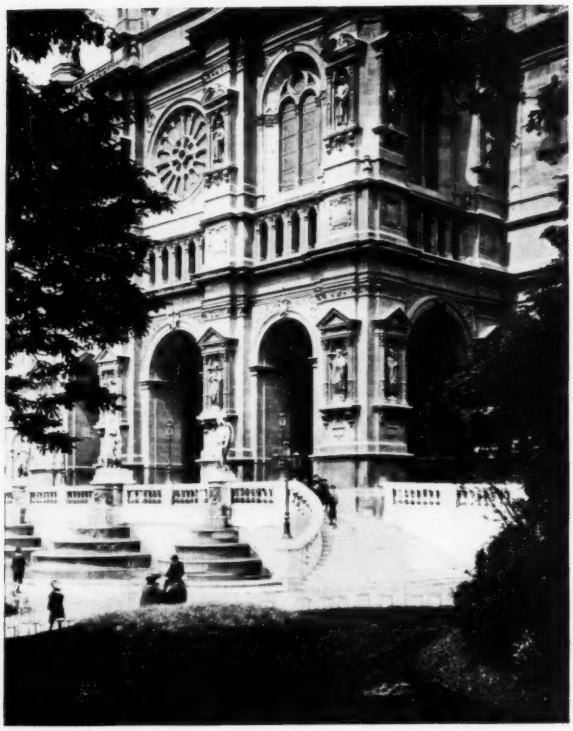
A PHOTO-ERA TOUR IN EUROPE

(Continued)

The Riviera di Ponente and Paris

WILFRED A. FRENCH, PH.D.

ALTHOUGH time did not permit us to make the coveted excursion to the justly-celebrated Villa Pallavicini, at Pegli, the wonderfully beautiful grounds of which had taken me captive twelve years before, we obtained an excellent survey of this beauty-spot from the train on the way to Nice. No railway route in Europe affords such a ravishing prospect of land and sea as the journey from Genoa to Nice, along the *Riviera di Ponente*. As on the trip from Pisa to Genoa, two days previously, the sun shed its full radiance upon the curving shore and the Ligurian Sea resplendent in the colors of the prism. All the way to Cannes this favored coast is an unbroken line of health-resorts, and hither flock travelers, the weak and the strong alike, from all parts of the world, notably from Northern Europe and Russia. And yet each has marked physical characteristics, which lend a pleasing variety to the moving panorama. Among the most important Italian pleasure-resorts passed *en route*, and admired in turn, are Savona, Noli, Alassio, Porto Maurizio, San Remo, Ospedaletti, Bordighera and Ventimiglia. Having submitted our luggage to the usual customs inspection, we soon enter French territory and halt at Menton. This popular resort enjoys a peculiarly favorable situation, protected, as it is, from the chilling north winds by a girdle of rocky mountains, and is esteemed an ideal spot for a winter residence on the Riviera, vying, in this re-



WILFRED A. FRENCH CHURCH OF THE TRINITY, PARIS

spect, with Nice and Cannes. Not far off, to the left, we note the wooded promontory of Cape Martin, after passing which we observe in the distance Monte Carlo and, close beside it, Monaco, jutting out into the sea. A short stop — an exciting moment for those who are familiar with the thrilling stories of wrecked fortunes and disturbed mental repose — and with a sigh of relief we continue on our way to Nice. We glide rapidly along, charmed by the sight of the broad, smooth beaches alive with rolling, transparent surf, and, beyond, the scintillating surface of the vast Mediterranean. While absorbed in contemplating so much enchanting scenery — being most comfortably settled in a swiftly-moving train — we took no heed of the passing hours. Here was nothing to mar, in the slightest degree, the keen sense of enjoyment that was ours. A feeling of unutterable contentment seemed to pervade our little party. We encountered relatively few tunnels on this route, and, in most instances, they imparted a zest to our visual appetite, which gave little hope of being appeased. Villefranche-sur-Mer, fair and bewitching, was passed and only too soon did we reach our journey's end —

WILFRED A. FRENCH
PARIS — MONUMENT TO WATTEAU
BRIDGE OF ALEXANDER III.
PARC MONCEAUX

ANTONIN MERCIÉ, SCULPTOR
A MEMORIAL, LUXEMBOURG GALLERY, PARIS

WILFRED A. FRENCH ST. ETIENNE DU MONT, PARIS

Nice, where, again, pleasures, new and rare, awaited us. We took up our abode at the Villa Brice, delightfully situated in the residential section of the city. This *pension* is most admirably conducted by an English couple, and its *cuisine* is unsurpassed. A stay of three days in this, the queen city of the French Riviera, enabled us to obtain an adequate impression of its numerous attractions, which are, in truth, most alluring. Added to the glorious work of nature is the product of human skill and taste. From points of vantage is seen the sumptuous beauty of land and sea, harmoniously blended and enhanced by picturesque architecture and luxuriant exotic vegetation. The *Jardin Public*, adorned with stately palm-trees and cool grottos, forming a combination of rare beauty and taste; the *Casino Municipal*, internally a veritable fairyland and making an irresistible appeal to lovers of art, music and games of chance; the broad and magnificent promenades extending for miles along the shore, and unsurpassed facilities for boating and sailing, show what the municipality of Nice has done for the pleasure of visitors that flock hither from the four winds of heaven. Nice has also

the honor of being the birthplace of four celebrated Italians, viz., Massena, one of Napoleon's marshals; Paganini, the wizard of the violin; Garibaldi, the patriot, and Gambetta, the French statesman. No wonder the patriotic Italian mourns the loss of his beloved *Nizza* as profoundly as does his Gallic neighbor that of Strasburg. Although the season had by no means begun, the city was filled with tourists who, like ourselves, desired to profit by the absence of crowds and — higher prices. The following morning we set out on an excursion along the famous Cornice Road, or the *Route de la Corniche*, now that this charming territory belongs to France, which acquired it with the province of Savoy in 1860. We went in two open carriages, having made an excellent bargain the evening before. The Cornice Road, built by order of Napoleon, traverses the most beautiful portion of the Riviera, i.e., from Nice to Mentone. There are, in reality, two roads, the upper, or *route supérieure* or the *Grande Corniche*, and the lower or *route inférieure*, which hugs the shore. The road ascends amid luxuriant vegetation and affords commanding views of all points along the shore. First we reached Mont Gras, with its famous observatory, followed by Eze, an old village perched high on a steep, isolated rock, resembling so much an ancient stronghold with its venerable walls and frowning castle. As we climbed higher and higher, we were surrounded by natural fastnesses, which, our driver informed us, would render any attempt to capture this part of France abortive. Of whatever character the defences, they certainly were not in evidence, although they might be made to yield their secrets to some daring aeronaut in a modern airship. Still we ascended, reaching, at last, the culminating point of the road,— Turbia, or *La Turbie*, nearly two thousand feet above the sea. It is an ancient village, consisting largely of Roman ruins, and visited by tourists chiefly on account of its view, which is truly magnificent. One can see the mountains and sea-coast to the East and West. Far below lie Monte Carlo and, gracefully outlined against opalescent waters, the headland of Monaco, the two forming the tiny principality of Monaco. From the dining-room of the new hotel, Rhigi d'Hiver, we gazed with rapture upon a superb panorama, while indulging in gastronomic pleasures and accompanied by excellent vocal and orchestral music. If anything could have enhanced the delights of this memorable hour spent at La Turbie, it failed to suggest itself, unless it was the presence of absent friends. Beyond La Turbie the road descends sharply, revealing a fine view of the Riviera di Ponente as far as Bordighera. Finally we came to Roccabruna, or Roquebrune, with its rich lemon and orange-groves. Ten minutes more, an abrupt turn to the right, and we were on the lower Corniche Road, and on the way to Monte Carlo. It was yet too early for the regular season, and the place seemed deserted. After feasting our eyes on the voluptuous beauty of the surroundings and admiring the magnificent casino, designed by Garnier, the architect of the Paris Opera House, we entered the world-renowned gaming-rooms *(salles de jeux)*. Our eyes lingered briefly on the sumptuous furnishings and lavish decorations, where cost, seemingly, had not been considered, but were riveted upon the group of persons surrounding the tables, where games were in progress. In

FERNAND CORMON, PINXIT

CAIN, LUXEMBOURG GALLERY, PARIS

a few moments, we, too, became interested in *Trente-et-Quarante*, each staking, as previously agreed upon, a limit of five francs. All but one of us lost, he gaining twenty francs. Nevertheless, every member of our group took no further part in the game, but simply watched the progress of the sport and noted the expression in the faces of those who won or lost fortunes. We were told by an acquaintance, who retired satisfied with moderate winnings, that successful gaming at these tables was nothing less than a science, and that great gains came only after a long series of losses, which the player must be in a position to weather. We left the place with no regrets, yet marveling at the seductive fairy-like aspect of the place, and the utter uselessness of it all to those who had been suddenly stripped of their wealth. We drove hence to the neighboring promontory, the seat of government. Monaco, including Monte Carlo, is an independent principality, ruled by a prince, has its own, separate money and postage-stamps and is picturesquely situated on a rocky peninsula, whose borders are laved by the waters of the Mediterranean. It is still surrounded by the old fortifications erected in the time of Louis XIV., and flanked with batteries commanding its pretty bay. Contrary to our expectations, no ludicrous military display smacking of *opéra bouffe* met the eye. Instead of pompous, gorgeously-uniformed mercenaries, armed with mediæval weapons, we observed only a double sentry, in a quiet, modern uniform, stationed at the entrance of the palace — itself a modest, unassuming structure. The new cathedral, however, built in the romanesque style, is a magnificent and beautifully-proportioned edifice, and held our attention for a considerable time. At four o'clock we reluctantly said *au revoir* to this seductive locality, and, once more on the lower Corniche Road, we continued our homeward drive in earnest, reaching Nice several hours later and in time for dinner.

At the conclusion of a most delightful repast — never omitting to pay a well-merited tribute to the rare artistry of French cooking — we examined the state of our photographic ammunition, only to find the supply entirely exhausted. The charms of the Corniche Road had claimed every available film. Fortunately the Eastman Kodak Agency in the *Jardin Public* was open till nine o'clock and, what was of vital importance, it carried a stock of fresh films of every size, and our needs were quickly supplied. At Fréjus the railway forsakes the shore, entering an attractive, mountainous country. We did not again behold the sea, until Toulon was reached. Here the mind pictured the young Napoleon winning his first military laurels, by helping to wrest this important naval station from the English. Skirting the shore, we had an excellent opportunity to observe the French Mediterranean fleet manœuvering a short distance away. Our next objective point was Marseilles, the principal seaport and the second city in France. We spent the afternoon visiting *Notre Dame-de-la-Garde*, which occupies a commanding position reached by a gigantic lift (*ascenseur*). Here we obtained a fine view of the immense harbor, the only object of general interest in this great city. The next morning saw us on our way to Lyons. We passed, following the course of the Rhone, a section of France rich in magnificent Roman ruins, most of which, for artistic beauty and excellence of condition, surpass even those of

WILFRED A. FRENCH
VIEWS IN THE PARK AT NICE

Italy and Asia Minor. Early in the afternoon we entered the magnificent city of Lyons, second only to Paris in industrial importance. The general aspect of the city, with its many imposing architectural features, was revealed to us by an extensive carriage-drive. We also seized a rare opportunity to visit one of the large silk-factories, an experience long to be remembered. Wishing to save time, we continued on to Paris in a "sleeper," but had occasion to rue our temerity. The compartments, with three couches in each, were arranged in parallel rows across the entire width of the car, a door, opening directly out, at each end. The couches were only a few inches apart and were provided with a thin coverlet, but no pillows. The latter we hired at the station shortly before the departure of the train, and for the necessary covering our shawls and traveling-rugs met every requirement. At 10.30 o'clock we lay down to sleep, but our efforts to obtain the coveted rest were interrupted by a noisy demonstration at each door. "*Billets, s'il vous plait.*" To this demand we complied as well as we could, aided by the glare of the lanterns skilfully directed by the zealous officials, and, this ceremony over, bang, bang! went the doors. These polite attentions were repeated several times during our nocturnal journey. The din of passing and shifting trains, as well as innumerable stops and delays, proved anything but soothing to our tired nerves. None of us remembered ever to have passed a more wretched night and, with exclamations of joy, we entered the *Gare de Lyon* at 6.45 A.M. Paris, at last!

If anyone who is accompanying me in spirit on this journey expects me to indulge in a protracted rhapsody on the most magnificent city in the world, he is going to be disappointed. Whatever this wonderful metropolis presents to the lover of the beautiful, — be he a great artist or an obscure student,— to the *littérateur*, to the scientist, is known the world over. The monuments of Paris are household words in every civilized community and rare, indeed, is the person of education who does not know them all by heart. During our stay of five days, we found it difficult to obtain even a fair geographical knowledge of this vast artistic wonderland, and, in order to avoid crowding the mind with a confused mass of impressions, we confined our sight-seeing to relatively few objects, concluding a series of strenuous, but highly successful, efforts with a memorable visit to Versailles. While photography did not necessarily dominate our thoughts, it clamored for recognition whenever a subject possessing the elements of an artistic picture met the eye. And here, where the very air was charged with artistic life, scenes making the strongest possible appeal to our sympathies succeeded each other in such rapid succession, that a deliberate, careful use of the camera was out of the question. The many tempting sights, caught from tops of tram and omnibus, kept the ultra-enthusiasts of our party quite busy, for they expended photographic ammunition with such recklessness as to present a graphic illustration of what might be aptly termed "frenzied photography." The cooler heads preferred to curb their photographic propensities, and to give their undivided attention to the novel and interesting scenes they were privileged to enjoy, finding other opportunities, rare, to be sure, to photograph special subjects with calm judgment and discrimination.

A. WAYLAND CUTTING POND-LILIES

A LEGEND OF THE POND-LILY

AGNES LOCKHART HUGHES

AGAINST a mass of purple clouds calm dreamed the slumbering trees,
And fireflies gay torches flung across the dew-pearled leas;
Lonely, an elderberry-bush knelt by the dimpling pool,
While lily-pads with jewelled crowns sailed o'er the waters cool.
Then, from the shadows densely dark, where soft the old trees slept,
A stripling birch with stealthy tread close to the blue pond crept.
There mirrored in its crystal depths he saw a star of night,
While diamonds gleamed above her brow and gemmed her gown of white.
Entranced, the birch-tree stooped and told the pale star of his love,
While like a broken silver ring the moon gazed from above.
Then, sudden, dawn shot arrows of scarlet through the skies,
And with a little sleepy yawn the starbreaks closed their eyes.
But she who on the blue pool shone forgot her far-off home;
So night condemned the errant star henceforth on earth to roam.
The fairies lifted lily-pads and taught her how to float;
Thus, ever since, this blossom fair rides in an emerald boat.
A gentle zephyr from the flowers filched their sweet perfume,
And scattered it, with dewdrops rife, upon the shimmering bloom.
Smiling, a slanting sunbeam danced across the waters cold,
And filled the lily's trembling heart with spikes of burnished gold.
Now, when the summer winds breathe low, and soft the starpoints die,
This blossom lifts her cup of pearl, gold-filled, towards the sky.
The birch still leans across the pool, and keeps his faithful tryst,
Reflected like a silver shaft where oft the star he kissed.
And far outshining all the lights that pierce the dome above,
The sweet pond-lily spreads her leaves and shines for him — her love.

EDITORIAL DEPARTMENT

WOMAN'S NUMBER

THE beautiful pictures which adorn this issue of the PHOTO-ERA demonstrate clearly, if any demonstration were needed, that woman finds her proper sphere in photography. It is a line of work well fitted to every impulse and desire of her nature. There is a certain deftness of touch in posing, a certain fineness of feeling in securing expression, which finds a ready response in sitters when a woman is the operator. With women their desire to look beautiful will always appeal to her feminine inclinations. Her sympathy will win a smile from the most ill-natured child. While even with men the social element is introduced, which drives away the worried look and makes the sitter appear at ease in his picture. All this, of course, assumes that the woman photographer is fitted for her work, as only the highest type of intellectual womanhood, here as elsewhere, will win out and be successful.

We regret that the pages of our magazine are not numerous enough to include the representative work of all the women photographers in the country. But one can glean from the work selected, and the appreciative article of Mr. Hines, a very fair idea of woman's place in photography to-day.

THE NEW ENGLAND CONVENTION

THE Ninth Annual Convention of the Photographers' Association of New England was held in Boston, Aug. 21-23, 1906. All possible credit is due to the officers, especially to President Johnstone and Secretary Evanoff. The hard work of these two gentlemen resulted in a most successful convention, under what may be termed rather unfavorable conditions. The National Convention at Niagara Falls, which occurred two weeks previously, drew a very great many people from New York State and Canada who otherwise might have attended that of the New England. The attendance was, however, the second largest in its history. It is to be credited with an unusually good exhibition of pictures by its members, and, owing to the energetic efforts of Secretary Evanoff, also the loan of many of the exhibits that were at the National, a circumstance much appreciated by the Association. We fully understand the situation that prompted the officers to offer, this year, one gold, twelve silver, and twenty-eight bronze medals, to be given the exhibitors. We think that the awards, by vote of the members, was an attraction, and that the verdict was a good and just one, since the gold, silver, and many of the bronze medals were awarded upon actual merit of the pictures. But when it came to the point of being obliged to give as many medals as forty-one to so comparatively few exhibitors, it may reasonably be questioned whether the recipients were all justly entitled to the award. A bronze medal calls for honorable mention, which is a *decided distinction*, and should be given only to work of a very high order of merit. Besides, the

officers elected for the coming year are very popular, and this alone assures the success of the next convention.

Mr. J. H. C. Evanoff, the president-elect, is one of New England's best photographers, an indefatigable worker, and possessed of the loftiest ideas as to his policy, which, we feel assured, will be fully equal to the best of former administrations. He will be cordially supported by Mr. W. E. Marshall, the new first vice-president, who, although new in Association work, is also one of our ablest artists; by Mr. George H. Hastings, the new secretary, a former president of the national body and a man of large personal popularity; and by Mr. S. M. Holman, re-elected for the seventh time as treasurer. Mr. Thomas Harrison Cummings repeated, in two sections, his Niagara Falls address on the first and second days. The greatest amount of interest was displayed in this discourse, as reports of its great reception at the National Convention had reached Boston, the lecturer being greeted most cordially on both days. The New England members thus received a very comprehensive idea of the movement, now on foot, looking towards the establishment of a National Academy of Photography, and which is to be taken up by the National body.

Mr. Alon Bement lectured very ably on the subject of "Composition," while his criticism of pictures, delivered both from the stage and in the exhibition-hall, were highly illuminating. Mr. H. A. Collings delivered a very timely address on business matters, dilating especially on the ethical side of the photographer's relations with his patrons and the public generally. Mr. Hearn, the president of the Photographers' Association of America, paid a tribute to the able effort of the president and secretary, which had come before his notice, and commented upon the interesting features of the prize question which was being worked out at this convention.

NATIONAL CONVENTION

THE Twenty-sixth Annual Convention of the Photographers' Association of America was held at Niagara Falls, New York, August 7–10 inclusive. Under the guidance of Pres. Chas. W. Hearn, of Boston, the deliberations were very successful. The addresses were pitched upon a high plane, and the discussions were exceedingly practical and useful. The address of Mr. W. I. Scandlin on "Business Methods" was a masterly talk on the practical side of the profession, which will long be remembered by those who heard it. F. Dundas Todd's paper on "The Cost of Manufacturing in a Photographic Studio" was a searching analysis of the conditions that confront the average professional to-day, with the financial side figured down to a nicety. No doubt the exchange of views and the discussion which it provoked will be of lasting value to those who participated and heard it. Owing perhaps to the poor setting, the impression of the picture exhibit was hardly up to the standard set in previous years. One looked in vain for the long-promised professional masterpiece that would revolutionize portraiture and mark an epoch in the progress of photography. The beautiful Indian pictures by Curtis, the handsome series

of portraits by Dührkoop, of Hamburg, in the Second American Photographic Salon, attracted much attention, and deservedly so. The high standard of excellence shown in these special exhibits was a fruitful theme of conversation during the convention. There was but one address devoted to the art side of photography, the subject being "Professional Portraiture in the United States and the National Academy of Photography," by Thomas Harrison Cummings. On the whole, we believe this convention to be one of the most valuable from the practical standpoint ever held by the association. The election of C. J. Van Deventer, of Decatur, Ill., gives much promise of the continuation of the good work in the future.

NATIONAL ACADEMY OF PHOTOGRAPHY

THE subject of a National Academy of Photography as presented to the Niagara Falls convention at the instance of President Hearn was a new idea that proved very popular. The object is to gather together the brightest minds in the profession and through this organized force to shape public opinion where it touches upon photographic interests. The immediate purpose will be to secure recognition for photography as a fine art. In view of the fact that the learned and artistic bodies of the old world have accepted photography as one of the graphic arts without equivocation or reserve, it is up to the American photographer to make a stand for similar recognition in this country. While we do not claim for our medium an equality with painting in the matter of artistic expression, we do insist that photography is being exploited more successfully of late years as a medium of art expression than some of the older mediums. Many pictures are hung in photographic exhibits that represent real art—sincere, vital, personal art. Though fettered with technical difficulties still, when photography goes back to the fundamental rules of design and beauty is the result, the man who does this is an artist, even though his recognition as such may be delayed. When the creative imagination enters with design into any art that art is a fine art by universal consent. A picture that is carefully planned and thought out, just as a symphony or a poem or a house might be planned to produce beauty, deserves to be recognized at its true value and worth, and photography will soon come into the possession of its own. In January of this year a National Academy of Design of New York and the Society of American Artists were united by a formal vote of both bodies into a National Academy of Art; their proposition is to include painters, sculptors, architects, and engravers only, as eligible to the honors of the academy. We think the addition of the word "photographer" would have honored the academy and would have strengthened its influence with those who are honestly looking for the manifestation of art in any form. In the absence of any disposition on the part of the academy to recognize photography, the photographers themselves will agitate the question and continue to agitate it on the ground that no question is ever settled unless settled right. A committee has been appointed by the National Photographers' Association of America, with full power to take the matter under advisement.

THE ROUND ROBIN GUILD

Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner. Membership may be obtained by sending name and address to the PHOTO-ERA.

FIRST PRIZE — GARDEN SCENES — WM. S. RICE

A SUBJECT which ought to appeal to every member of the Historic Picture Guild and incite him to the active making of the pictures is that of historic old churches. Alas, so few remain that the collection, if complete, would be small, for many are destroyed, and most of those that remain are rapidly falling to decay.

This summer while taking a driving-tour through New York State — not an automobile rush, which resembles nothing so much as that wild ride of Phaeton, but a leisurely journey with a horse that feared neither auto nor steam-engine, and only asked opportunity to give the former a wide berth when it shot past enveloped in clouds of dust — taking this delightful pilgrimage where the object was not to see how soon one could get somewhere and away from it to the next place, I came to Meeting-house Green, on which stands the old Congregational Church where the father of Robert Ingersoll used to preach.

Priest Ingersoll was a man of such broad views as to frequently cause dissension between himself and his parish. The church where he ministered to a devout and faithful people is crumbling to the dust, the little village is grass-grown and almost deserted, and the old burying-ground, where, with solemn step and slow,

they carried one after another of those of their number who had bid good-by to all earthly scenes, is overgrown with weeds and brambles.

Later in the day I sat by the old fireplace in an historic house where, when the hearth-fires burned bright, Priest Ingersoll and his colleagues met and held many a spirited controversy, and I saw the very mug — so large it ought to be dignified by the name of pitcher or tankard — in which the cider was mulled, then kept warm on the hearth, and from which, before they separated, all drank, and which served as the pipe of peace.

Of course my camera was with me, and I photographed the old church and also the old schoolhouse, the latter being the building in which Robert Ingersoll had his first essay at learning.

The Guild should and must possess pictures of all our historic churches that are extant, and will not each member make a special effort to contribute his quota to our collection?

Among the pictures of historic trees which came to the Guild in answer to the call for them were three views of a historic tree, the pictures of which were made by Mr. H. E. Morrison, Orford, N. H. This tree, writes Mr. Morrison, was planted to commemorate the surrender of Burgoyne. Two years ago last January one third of this sturdy oak blew down, and last winter one half of what remained standing fell, and this spring it was found necessary to cut down the remaining portion. The stump is fifteen feet in circumference. Mr. Morrison enclosed with his letter four prints of this tree; and though the tree itself is no longer standing, we still have its picture. Will not others of our members who live near some famous old tree endeavor to procure its picture before it falls to the ground?

DARK-ROOM LANTERNS

There are lanterns, and lanterns, and more lanterns designed for use in the dark room, but unless one can afford one of the better class it is wiser to manufacture one's own. Most of the lanterns are made for use with kerosene, but with the cheaper grades there is always more or less of a disagreeable odor and the annoyance of a greasy lantern. The trouble with the small lantern used with kerosene is that the confined air becomes heated, the oil loses its density and oozes out and greases the lantern. If one must use a cheap lantern, it will be found much more agreeable to remove the lamp and substitute in its place a candle and candlestick. The camping or soldier's candlestick is just the thing for a dark-room lantern. It is of brass, is only two inches high, and costs but 15 cents. Use adamantine candles. They last twice as long, and do not melt and run, as does the ordinary candle.

In the lighting of the dark room, or rather the darkening of it, there is a great deal of latitude. The beginner is so impressed with the fact that actinic light spoils his plate that he covers every crack, so that not a ray may creep into the room. Now if the sensitive plate is kept in the red rays from the lamp, diffused light in the room will not do the slightest harm to his plate. Then if he provides himself with two or three light wooden covers a little larger than his trays the plate can be covered until development is well out, when there will be no danger of fog. Cigar-box covers make convenient covers, with a tiny knob screwed on for a handle. These covers will be found a very handy adjunct to the dark room, for if development is slow the tray may be covered and left to work out its destiny.

A wooden starch-box makes a good foundation for a lantern. Bore holes in one end for ventilation and shut off the rays of light which come from it by using a round pasteboard box with notches cut in the edges. In the bottom of the box cut the opening for the light and cover with red fabric, or have a ruby glass fitted in. The box thus converted answers every purpose of the more expensive affairs at a minimum of expense. Use the candlestick and adamantine candles mentioned, and one has a lantern which will neither heat the dark room nor annoy one with disagreeable odors.

ROUND ROBIN GUILD COMPETITIONS

First prize: Value $10.00.
Second prize: Value $5.00.
Third prize: Value $2.50.

Prizes may be chosen by the winner, and will be awarded in photographic books or magazines published or advertised by us; in enlargements, art portfolios of photogravures, mounts, or other photographic materials advertised by us; or, if preferred, we will send any article of a photographic or art nature which can be bought in Boston for the amount of the prize won.

RULES

Membership in The Round Robin Guild, with all its benefits — among which the correspondence privilege probably stands first — is free to all, and we invite every photographer to become a member. Entrance in the monthly competitions is also free to all, whether subscribers to PHOTO-ERA or not.

SUBJECTS FOR COMPETITION

August.— "High Speed Photography." Closes September 30.

September.— "Flower Studies." Closes October 31.

AWARDS — GARDEN SCENES

First prize: Wm. S. Rice.
Second prize: J. H. Field.
Third prize: Robert E. Weeks.
Honorable Mention: Miss Julia H. Elton, Jessie B. Dixon.

MAKING AN ENLARGED NEGATIVE

The tiny negatives made with a pocket camera, though often excellent in detail and well chosen as to subject, are on so small a scale as to be of no pictorial value except as a picture memory record. One may, however, make from one of these miniature negatives enlarged negatives from which prints can be made as interesting as though the negative itself was the original instead of being an enlargement.

The process necessitates a little more work than the making of an enlargement on paper, but the principle is the same.

First, one must make by contact printing on a film or plate a good positive. Lantern-slide plates answer the purpose as well as any, if not better than any other medium.

This small positive is placed in the enlarging camera and from it is made the large negative. If the enlargement is to be 8 x 10 or 6½ x 8½, use an 8 x 10 plate coated with a very slow emulsion. After adjusting the camera and getting the correct focus, make a print on a piece of bromide paper in order to judge of the length of exposure. Then place the sensitive plate in position and make the exposure.

Develop the plate in a solution which will bring out the detail well.

Often one gets from an enlarged negative a more artistic effect than is obtained by direct exposure in the camera.

Directions for making enlargements have been given in the PHOTO-ERA, and the amateur who is not familiar with the operation is referred to the article.

SODIUM COMPOUNDS

Sodium compounds play an important part in the chemical processes of photography. Sodium hyposulphite is the one which is used the most lavishly and which is our solvent for the unused silver salts in plate or print. When a print is placed in a solution of hyposulphite of soda a new compound is found,— silver sodium hyposulphite. This double salt dissolves very quickly in water and is easily washed out of the gelatine. In case the solution of hyposulphite is not strong enough to form this double salt, it produces another compound which is insoluble and cannot be washed out of the film or paper. This compound decomposes by degrees, and in time produces a yellowish brown deposit, which ruins paper or film. This is the reason why prints turn a dull yellowish color. By experiment it is found that each atom of nitrate of silver requires three atoms of hyposulphite of soda to form this double soluble salt.

Sodium hyposulphite does not keep well in solution, and should be made up fresh, though a small lump of chalk dropped in

the hypo bottle will neutralize the acid and act as a preservative.

Sodium hyposulphite will penetrate glass or porcelain in a few days, and therefore contaminates any solution which is placed in a vessel which has once been used for a hypo receptacle.

When Herschel first discovered that sodium hyposulphite was a solvent for chloride of silver the price was one guinea per pound.

The abbreviation "hypo" has been so long used that when we meet this chemical under its more dignified names we sometimes fail to recognize it. Sodium hyposulphite, sodium thiosulphite, hyposulphite of soda, and hypo soda are used to mean our plain "hypo."

Sodium sulphite is a sodium used in the developing solutions for preserving the active agent and preventing it from oxidizing.

Pyro, for instance, has a great affinity for oxygen, and on being exposed to the air turns yellow and passes quicklythrough the stages of discoloration until it is black, in which state it is useless as a developer. The sulphite of soda has also an affinity for oxygen, and the quantity used in the developer being much in excess of the developing chemical absorbs the oxygen and preserves the pyro, metol, hydroquinone, eilsonogen, or whatever developing chemical is used.

Sodium sulphite is also used to restore the color to negatives which have been bleached by intensification with bichloride of mercury.

In the toning bath the different compounds of sodium used in neutralizing the solutions affect the color of the print very materially.

Sodium biborate (borax) produces beautiful sepia tones, and is a specially desirable sodium to use in the toning solution of matt surface papers.

Sodium carbonate will render warm brown tones, which vary in depth the longer or shorter time the print is left in the solution.

Sodium bicarbonate gives purplish blacks, and for some pictures this is a very pleasing tone.

Sodium acetate clears up the whites and gives a brilliant print. This soda must always be added to the bath an hour or two before using.

With one or two exceptions, all baths in which gold is used should be made up twenty-four hours before using to allow them time to "ripen," this being the photographic term for the period of rest required to allow the different ingredients of the bath to become assimilated and act readily and evenly on the paper.

Sodium chloride — common salt — is used in the preparation of silver printing papers, and is also an active agent in precipitating the chloride of silver from the washing-waters. It is used as an accelerator in alkali developers, and in a silver bath which has become discolored a handful of salt thrown in and allowed to stand will clear the bath.

ANSWERS TO CORRESPONDENTS

GILMER W.— The picture which you submitted in the Guild contest, "Reflections," was an excellent one, and just came short of being a prize winner. Hope to see more of your work at an early date. Photography has many surprises, the least of them being enjoyable, and it has so many possibilities and adaptabilities that it is no wonder the craft has so many followers.

G. L. KERNS.— To remove old silver stains from negatives, soak first in a solution of potassium iodide, using the chemical twenty grains to the ounce. It should remain at least fifteen minutes in this, then washed and transferred to a solution of cyanide of potassium,— thirty grains to the ounce. Handle with a plate lifter, and if the stain does not disappear after a reasonable time, rub the film very gently with a piece of surgeon's cotton tied to a stick. If the stains are very old or very pronounced, use the solution of double the strength.

B. N. S.— The lead intensifier about which you ask is probably made of nitrate of lead and ferricyanide of potassium. Use equal parts of a ten per cent solution of the two chemicals, and add a few drops of acetic acid to the mixture.

SODIUM SULPHITE AND CARBONATE

In order to insure uniform strength, all solutions of sulphite or of the alkalies should be tested with the hydrometer, as they are the ones which vary in strength and condition. Suppose we make a solution of sodium sulphite crystals, 3 oz. of crystals to 16 oz. of water, we get a solution of a certain strength. We may not, however, get a solution of the same strength at another time, although it is prepared the same as the first. Its strength may be greater or less, according to the purity of the salt used. If we test the first solution, noting that it tests 45, and then the second, which tests only 40, we see at once that the second lot of sulphite was not of so good quality as the first, and we add more until the solution tests 45, when we know that the two solutions are of equal strength. The following tables may be of use in preparing solutions of both carbonate and sulphite. The test numbers given are those usually obtained with crystals of ordinary purity.

Sodium Sulphite

1 oz.	pure	crystals	to	16 oz.	water	tests. . . . 15
2	"	"	"	"	"	 30
3	"	"	"	"	"	 45
4	"	"	"	"	"	 60
5	"	"	"	"	"	 75
6	"	"	"	"	"	 90

Sodium Carbonate

1 oz.	pure	crystals	to	16 oz.	water	tests. 10
2	"	"	"	"	"	 20
3	"	"	"	"	"	 30
4	"	"	"	"	"	 40
5	"	"	"	"	"	 50
6	"	"	"	"	"	 60

REMOVING GLASS STOPPERS

Glass stoppers sometimes occasion even more difficulty than corks in their removal. An almost infallible cure for a fixed stopper is to grasp the bottle in the left hand, and with the thumb press against the offending stopper, while with the right hand gently tap against this pressure, using the handle of a knife or other hard instrument. In this way gradually work round the stopper, which will quickly become loose enough to be extracted.— *Nemo.*

OVEREXPOSURE AND HALATION

Overexposure in the camera produces a kind of light fog which may be uniform all over the negative or appear as local fog in the form of halation around the window of an interior view. Plates which have been overexposed or accidentally fogged may be restored and used as slow plates for time pictures. A solution for restoring plates is as follows:

Chromic Acid	15 grains
Potassium bromid	30 "
Water	5 oz.

Each plate should be allowed to remain fifteen minutes in this solution, and then washed and dried. All this must, of course, be done under red light in a dark room. Plates so treated will require double exposure when used.

Slight halation and other kinds of local fog can often be removed by rubbing with a piece of chamois dipped in alcohol. A clean place should be used as fast as the chamois becomes blackened. Where the fog is too dense for this treatment, the following solution will be found of use:

No. 1

Saturated solution red prussiate of potash.

No. 2

Hypo	½ oz.
Water	4 "

Take one dram of No. 1 and two drams of No. 2. Apply this quickly and evenly to the fogged spot with a small brush, and rinse at once. Repeat until the reduction is sufficient.

The Filter

HUMOR OF THE LAW

Few admirers of the writings of Thomas Nelson Page, the author of "Mars Chan," "Red Rock," and "Gordon Keith," know that the famous Southern writer began his career as a lawyer.

Mr. Page confesses that he was not a success at the law, but his experiences around the old court house gave him material for many of his most popular stories. One story that he relates with great relish is of an experience he had with an old negro client soon after he hung out his shingle. The old man had known Mr. Page all his life, and, becoming involved in a controversy regarding a small piece of property he owned, rode into Hanover Court House and asked Mr. Page to take his case.

They went before the county court, and the case was decided against them. After the decision had been handed down, Mr. Page went over to where the old man was sitting in the court room. "Uncle Jim," as he was called, was greatly disgruntled at the outcome of the trial, and Mr. Page sought to soothe him.

"Now, Uncle Jim," he said, "we lost this case, but if you have got any more money we can appeal to a higher court and win it."

" 'Cose I ain't got no mo' money, Marse Tom," was the old darkey's reply. "Ef I'd a-had any money wurth talkin' about I'd got a good lawyer in de fust place."— *New York Times.*

SOLDERING

Casey.— "Ye 're a har-rd worruker, Dooley. How many hods o' morther have yez carried up that laddher th' day?"

Dooley. —"Whist, man — I 'm foolin' th' boss. I 've carried this same hodful up an' down all day, an' he thinks I 'm worrukin'!"— *Cleveland Leader.*

PLEASANTRIES

"Translate, please!" said the teacher. And the scholar, with his French reader, began slowly and painfully, " '*L'anglais avait son sang-froid habituel*'—'The Englishman had his usual bloody cold.' "— *Exchange.*

SCANDALOUS

"Do you care for *paté de foie-gras*, Mrs. Newscads?" "No, ma'am! and I would n't have his works in my house. I think these French authors is just scandalous."— *Exchange.*

ALL THE SAME

She was rather proud of her somewhat limited knowledge of the French language, and fond of airing it. She went to secure places on a diligence for one of the Swiss mountain trips, and, approaching the conductor, demanded:

"*Estes-vous les diligence?*"

"*Non, Madame, pardon; je suis le conducteur.*"

Lady, somewhat angry at the correction, excitedly.— "*C'est tout de même; je prenderai deux places dans votre intérieur.*" — *A Bundle of Letters.*

COMFORTING WORDS

The bishop thought the capful of wind was an Atlantic storm, and worried the captain by asking constantly if there was danger. The captain led his lordship to the hatch over the fo'cs'le. "You hear the crew swearing," he said. "Do you think those men would use such oaths if there was danger of their meeting death?" The sun set in an angry storm-torn sky, the wind rose higher yet, and the good steamer pitched and rolled and groaned and creaked. It was midnight, and a portly figure crept forward to the fo'cs'le hatch. "Thank heaven," murmured the bishop, "those men are swearing yet." — *New York Mercury.*

NOTES AND NEWS

THIRD AMERICAN SALON

THE Third American Photographic Salon will be held in 1906 and 1907 in New York, Philadelphia, Washington, Pittsburg, Chicago, San Francisco, Minneapolis, Providence, and Toronto. American work must be framed, and should be sent to local juries before Oct. 30, 1906, as follows:

For District of Columbia, Delaware, Maryland, and all South Atlantic States — To Charles E. Fairman, Capital Camera Club, Washington, D. C.

For Vermont, New Hampshire, Rhode Island, and Massachusetts — To Wendell G. Corthell, Boston Camera Club, 50 Bromfield St., Boston, Mass.

For Ohio — To E. G. Fountain, Cleveland Camera Club, Cleveland, O.

For Canada — To J. P. Hodgins, Toronto Camera Club, Forum Building, Toronto, Canada.

For Maine — To S. S. Skolfield, Portland Camera Club, Portland, Me.

For Illinois, Indiana, Michigan, Wisconsin, Iowa, Kentucky, and Southern States — To Robert E. Weeks, Chicago Camera Club, Chicago, Ill.

For Minnesota — To Louis Fleckenstein, Faribault, Minn.

For Kansas and Colorado — To Thomas A. Morgan, Denver Photographic Society, Denver, Col.

For California, Washington State, and Oregon — To Fayette J. Clute, care *Camera Craft*, San Francisco, Cal.

For New York and New Jersey — To Wm. H. Zerbe, Jr., 345 Spruce St., Richmond Hill, N. Y.

For Pennsylvania and all districts not named — To Pen, Pencil, and Camera Club, 510 Smithfield St., Pittsburg, Penn.

The work of those who have exhibited at previous important Salons need not be submitted to the district juries, but should be sent to the nearest Federation Camera Club, and included in their shipment.

Any exhibitor *may* send direct to the National Jury, care Pen, Pencil, and Camera Club, 510 Smithfield St., Pittsburg, Penn.

Work *returned* by the local jury *may* be sent to the National Jury by the exhibitor himself, if he so elects, and *will receive full consideration*. A National Preliminary Jury, consisting of twenty-three well-known photographers, will select about one thousand frames from the work sent to Pittsburg, and the final jury will consist of six painters of national reputation.

All persons intending to submit work are requested to communicate at once with the Secretary of the Federation, Paul H. Reilly, 46 Lomond St., 6th Ward, Pittsburg, Penn., asking for a copy of the rules and conditions.

The Annual Print Exhibit of the Oregon Camera Club will be held in the new building of the Portland Art Association during Thanksgiving week of this year. This exhibit will be more largely attended and will represent more workers than any previous exhibit of the club. The Oregon Camera Club has 125 members, who are active and enthusiastic workers, and takes the lead in things photographic in the Northwest.

The Second Annual Photographic Exhibition of the Photographic Section of the Academy of Science and Art of Pittsburg will be held during November, 1906. Pictures will be accepted in two classes; namely, Pictorial and General.

All work entered for the Pictorial Class will be judged by a jury of painters.

The General Class will comprise examples of work shown for its technical qualities, photographs by artificial light, photography as applied to industrial and educational purposes, historical record work, etc.

This exhibition will be open to all photographic workers, and a prospectus and entry form can be had on application to the Secretary, J. M. Conner, Shetland and Finley Avenues, Pittsburg, Penn.

Announcements have been issued for the Fifty-first Annual Exhibition of the Royal Photographic Society of Great Britain, to be held at the New Gallery, London, from Sept. 20 to Oct. 27, 1906. Entry blanks and copies of the regulations may be had from J. McIntosh, Secretary, 66 Russell Square, London, W. C.

"Piccolo" is the name of one of the most ingenious and valuable devices for the camerist known at the present time. This novelty is a sort of pocket tripod; a simple means for attaching a folding camera quickly to a lamp-post, tree, telegraph-pole, fence, column, railing, table, chair, bicycle, rock, or any similar object. Its weight is a little over eight ounces, and the price is 5 Reichs-marks ($1.25), including a neat carrying-case. Further particulars may be had of the maker, Otto Spitzer, Berlin W. 30, Germany.

Our readers will doubtless be pleased with the series of pictures by that eminent illustrator, Miss Zaida Ben Yusuf, which appears in the present issue of the PHOTO-ERA. These photographs depict, truthfully and artistically, the character of Capri, that wonderfully attractive island in the Bay of Naples. Miss Yusuf passed considerable time there not long ago, exploring its mountains, rocks, and grottoes, and made a large number of highly successful pictures, for which purpose she used a No. 5 folding Kodak fitted with a Goerz lens.

"Around the World in Ninety Days" is a book of travels from the pen of Frederick Chamberlin and copiously illustrated with photographs taken by the author. The volume very properly

devotes most of its space to a description of Hawaii, the Philippines, Japan, and China, countries which seem to have appealed to the author's sympathy with special force, for he chronicles his experiences in a manner strikingly fluent, graphic, and attractive. The description of his interview with Aguinaldo, the quondam Filipino chief, is of peculiar interest. Mr. Chamberlin's style is direct and clear, breezy and terse — a refreshing change from ordinary books of travel. The numerous excellent illustrations accompanying the text attest the industry and success of Mr. Chamberlin as a photographer, proving the value of an efficient camera as part of a tourist's equipment. (Published by the C. M. Clark Publishing Company, inc., Boston, Mass.)

THE NEW ENGLAND CONVENTION

DISPLAY OF APPARATUS AND SUPPLIES

THE manufacturers and dealers contributed the usual display of apparatus and accessories — considered by many the most important feature of a photographers' convention. From the beginning it has been regarded as the backbone of these gatherings, national or state, and rightly so. In this instance the exhibition of photographic supplies was an excellent one, and improved, up-to-date tools and methods very much in evidence.

The Robey-French Co., under the personal supervision of Mr. H. D. Haight and an able corps of assistants, occupied about one third of available floor and wall space with cameras, lenses, backgrounds, studio furniture, and other accessories, assiduously demonstrating their character and use.

The Eastman Kodak Co. was on hand with its Aristo School, disseminating practical and useful knowledge about printing and toning. The heads of the company's other numerous departments were present, ready to give the latest and best information in regard to its various products, including cameras, papers, dry-plates, and other specialties.

The Pinkham & Smith Co. displayed photographic as well as optical goods of a large and pleasing variety, under the personal supervision of Mr. Smith and staff.

The Anthony & Scovill Co. showed a large and complete line of cameras, studio outfits, all of the latest styles. They were all new goods, in mission as well as in dark oak finish. The entire exhibit was in charge of the veteran J. Benjamin Pelgrift.

C. W. Shepard, dealer in photographic supplies, new and second-hand, was personally in attendance at his desk.

The Sprague & Hathaway Co., manufacturers, exhibited a fine line of high grade and artistic portrait-frames, in charge of Mr. A. H. Paul. Messrs. Hathaway, Wallis and Woodward, the members of the firm, were also in attendance.

Willis & Clements, manufacturers of the Platinotype Paper, were ably represented by Mr. M. B. Schwab, who was provided with an admirable collection of Platinotype prints. Their new paper, "Japine," attracted considerable attention.

The "Angelo Sepia Platinum Paper," a new division of the Eastman Kodak Co., was conspicuously represented by a large mural display, an art show in itself. It was in personal charge of the energetic Jas. D. Nunzio and three aids.

The Artura Photo-Paper Co. was represented by Mr. Ackermann, who made plain the merits of the Artura Iris Paper, made in several popular tints.

The Defender Photo-Supply Co. had an interesting exhibit demonstrating the excellences of its printing-papers, as particularly set forth in several superb views of Niagara Falls by Curtis. The firm was represented by Messrs. L. D. Brown, M. A. Daily and R. L. Ennis.

The Bausch & Lomb Optical Co. showed samples of every lens of their manufacture, and fulfilling every known photographic need. Photographs, illustrating the well-known virtues of this firm's product, were a pleasing feature of the exhibit. Mr. S. Lawrence was in charge.

The Voigtlaender & Son Optical Co., represented by Mr. John L. Yatman, successfully held the attention of all interested in studio and landscape photography. The "Collinear" is manifestly a tremendous force in photographic optics.

The C. P. Goerz Optical Works had a unique and effective exhibit, Double Anastigmats in show-cases and convincing photographic proofs on the walls of their enclosure. The most conspicuous object was the famous Goerz Trophy, a large solid silver cup, won this year by Garo of Boston. The firm was represented by Mr. O. Goerz, Mr. O. Chouinard and Mr. A. K. Boursault.

J. H. Dallmeyer, Ltd., represented by Mr. F. G. Burgess, displayed a case of lenses and a fine collection of prints. Evidently the Dallmeyer Portrait-Objective still has a strong hold on the affections of eminent portraitists.

The Cramer Dry-Plate Co., always on deck, was busy distributing samples of plates and Acetone, duly appreciated by the friends of "Papa Cramer," whose friends are legion.

The Hammer Dry-Plate Co., not to be outdone, gave away a limited number of extremely pretty Hammer scarf-pins.

Among the manufacturers of mounts were the A. M. Collins Mfg. Co., with a complete display of its specialties, in charge of Mr. H. A. Stone; the Bridges Mfg. Co., Mr. T. E. Selecman acting for the firm; and Taprell, Loomis & Co., whose effective exhibit was in charge of Mr. W. A. Taprell. Backgrounds, as usual, were a prominent feature. Packard Brothers, whose exhaustive display was cared for by the hustling Mr. Packard, had a competitor in the Rough &

Caldwell Co. An interesting collection of pastels and miniatures was shown by Mr. J. M. Strock, and C. F. Little was on hand with a first-rate embossing-press. The Wollensack Optical Co. and A. J. Lloyd & Co. were also represented.

From Tennant & Ward, 287 Fourth Avenue, New York, we have received a copy of the new Classified List of American and English Photographic Books in print Aug. 1, 1906. As the only list of its kind, it should interest every photographer.

The Eastman Kodak Company announces the purchase of the Angelo Sepia Platinum Paper, cold development, formerly owned by Mr. Jos. Di Nunzio of Boston. The Di Nunzio paper has by merit alone made a place for itself in the photographic market, and is justly popular with a large number of photographers.

From the Joseph Dixon Crucible Company, Jersey City, N. J., we recently received a copy of their latest publication, "Through Frisco's Furnace." The booklet is finely made up and well printed, and the seven half-tone illustrations are unquestionably the best views that have been shown of modern steel-frame constructed buildings at San Francisco that withstood the earthquake and fire of April 18, 1906.

Although the purpose of the publication is to show how well Dixon's Silica-Graphite paint preserves the maximum strength of steel work of high buildings, so that severe strains can be successfully resisted, yet at the same time it tells, in an interesting manner, of the originality of the American architect and engineer, and of the soundness of their steel-constructed buildings under the crucial test of the earthquake, dynamiting and fire.

AUTOTYPE TRICHROME TISSUES

The brief general principle of this process is as follows: negatives of colored objects are taken on color-sensitive or orthochromatic plates, which are used with light filters or screens by known methods. The negatives are printed on carbon tissues of suitable red, blue and yellow pigments. The resulting images are then developed and superimposed on one support.

To those familiar with the working of double transfer carbon the process now described will present little difficulty. The tissues, yellow, red and blue, are sensitized, dried and printed in the ordinary way, the negatives being provided with safe edges.

The exposure differs somewhat from the ordinary carbon printing, and as the negatives are usually very thin the exposure is rapid. In our experience we have found the following to be the approximate ratio of exposure: blue, 2; red, 3; and yellow, 8.

After exposure the prints are squeegeed on special semi-transparent temporary support and developed in water of about 95° to 100° F. After development the prints are rinsed in cold water and hung up to dry.

The most suitable support of the final transfer of the prints has from experience been found to be ordinary *single* transfer paper. The pieces of this it is intended to use should be placed in cold water for about half an hour and then immediately before use into hot water about 150° F. for about a quarter of an hour. When ready, take a sheet of this paper and place in a dish of cold water and immerse the yellow print at the same time. Place the yellow print face to face with the transfer paper under water, lift both out together, and hang up to dry. It is not necessary to use a squeegee. When the print has become dry, raise the support at one corner with a pin or sharp knife, and then run a paper-knife between the two to separate them. The yellow print having been successfully transferred, the next step is taken with the red one.

Before attempting to transfer the red print it is necessary to remove from the yellow print every trace of the waxing solution. This is done by rubbing the print over with a piece of rag wetted with benzole and a little tripoli or whiting. Both the red and blue prints are transferred in the same manner, but a transfer solution is required to insure adherence.

The yellow print, resting on its final support, is immersed in clean cold water, and when flat is laid in the transfer solution, face upwards; soak the red print in cold water, and place that also in the solution, face downwards upon the yellow print, avoiding air-bells. Lift both out together and lay them upon a sheet of glass. The semi-transparent nature of the temporary support allows prints to be easily examined by transmitted light, and the registration of the superimposed images is easily effected. The images resting on the glass are stood on one side to drain, the two being then detached from the glass and hung up to dry.

The transfer of the third, or blue, print is accomplished in exactly the same manner, including the treatment with benzole, etc. No alum or other hardening substance should be used until the final print has been transferred, then the compound picture may be placed in a very weak solution of formaline.

Absolute accuracy of registration is facilitated by placing on the negatives at diagonal points two tiny black dots, which will appear white in the resulting prints. These white spots are pierced with a needle on the dry prints and brought together during the transfers. If they fit together accurately it may be assumed that the registration is correct.

Transfer Solution: Nelson's No. 1 cut gelatine, 1 oz. to 60 oz. of water, and strain. Temperature for use, between 70° and 80° F., but not above.

George Murphy, Inc., Trade Agents, 57 East Ninth St., New York City.

THE NATIONAL CONVENTION

DISPLAYS OF MANUFACTURERS AND DEALERS

The displays of manufacturers and dealers were as much in evidence this year as ever, and proved to be both interesting and instructive, many new instruments and preparations being shown, as well as those the long standing reputation of which has made them staple articles in the photographic trade.

Willis & Clements, represented by Messrs. Dietrich, Brackett and Schwab, showed their Japine Platinotype paper, which is made in both matt and glazed surfaces, and bids fair to be a great success, owing to the simplicity of manipulation. The new product attracted much favorable attention, as did the new storage tube for keeping it absolutely air-proof.

Under the personal direction of Mr. Murphy himself, assisted by Messrs. Clark and Fraley, the well-known firm of George Murphy, Inc., displayed Ross lenses and Autotype Carbon tissues. Considerable favorable comment was heard regarding some prints in the new three-color tissue which were exhibited.

In charge of Messrs. Folmer, Markus, Burkhardt and Parker was the attractive combined exhibit of the Century Camera Co. and the Folmer & Schwing Co. Many of the well-known Century products were shown, including the Century Studio Outfit and Cirkut Camera, while the new Auto Studio Shutter, Focusing Attachment and Tilting Stand of the Folmer & Schwing Co. received much merited attention.

The ever-interesting demonstration of the Eastman Kodak Co. was this season in the able hands of Messrs. Ames, Noble, Robertson, Cummings, Niles and Chappell. Two of the new Dry Mounting Presses, heated either by gas or electricity, were in operation, and sample prints were given away. This new machine marks an epoch in the history of photographic picture-making.

It was not difficult for the Wollensak Optical Co. to secure its share of praise for the new and absolutely silent Studio shutter, as well as the new Royal Portrait lens, working at F. 3.8 and fitted with a diffusing attachment.

The school of the American Aristotype Co. is always one of the features of every convention, and the demonstration of printing, on all grades of Aristo, with the Aristo lamp, was as popular this year as ever. The exhibit was in charge of Mr. T. W. Pattison, assisted by an able corps of demonstrators of each grade of paper, among whom were Messrs. Barbeau, Hazlett, Bouton, Becker, Mutton, Rice, Meacham, Wentz, Hopkins, Lansing and Doehn.

Mr. Weil was on hand for the Seneca Camera Co. with an attractive display of apparatus. Perhaps his best feature was the new bellows support and double shoe on the Seneca View Camera.

"Papa" and Mrs. Cramer, without whom no convention would seem natural, were, with the assistance of Messrs. Sheets, Hart, Dorella, Schaffer and Carrik, making negatives in a small studio, arranged to demonstrate the fine qualities of Cramer plates. In albums were shown the work of men like Strauss, Rosch, Clark, Harris, Ewing and Rinehart on these plates.

Iris, the new matt developing-paper, was the leader of the Antura Photo Paper Company. The product is beautiful in tone and surface, and promises to be popular.

The Hammer Dry Plate Company gave away a large number of gold Hammer scarf-pins, which were highly prized as souvenirs. The exhibit of this firm was in the hands of Mr. Richard Salzgeber and Messrs. Racette, Taylor and Towle.

Although the M. A. Seed Dry Plate Company had no special exhibit, it was extremely popular, as ice-cold lemonade was freely given to the thirsty. Mr. Seed was in attendance, with Messrs. Guthrie, Allen, Richardson, Jones, Stamp and Waide.

E. B. Meyrowitz was ably represented by Mr. E. M. Bennett, whose display of Zeiss lenses attracted much attention.

Mr. Edward Bausch represented the Bausch and Lomb Optical Co., and with Messrs. Hammele, Lawrence, Jarrell, Moore and Kingsbury showed a fine line of lenses and shutters, in all sizes. The portrait Unar lens, which was demonstrated under the Aristo lamp in the Bricker studio near by, carried off the honors, for its work was ample recommendation of its sterling qualities. Beautiful prints by eminent photographers such as Strauss, Rosch, Davis & Eichemeyer, Pach Brothers, Matzene, Steffins, Rinehart, Partridge and Edmondson, adorned the exhibit and still further demonstrated the excellent qualities of this lens.

The C. P. Goerz Optical Works had one of the finest exhibits of the show, including a studio for demonstration, exhibits of lenses and prints showing the quality of the work done by them. An interesting feature was a number of lenses that went through the San Francisco fire. The handsome $650 Goerz cup, which was awarded to Mr. J. H. Garo of Boston for his magnificent portrait of a girl, was shown, and attracted much attention. Refreshments were served, and Messrs. Holst, Boursault, Goerz, Benson, Chuniard and Lussier gave all information-seekers a cordial welcome.

The Voigtlander & Son Optical Co. were very successful with their new Heliar lens working at F. 4.5 and the Dynar for amateur use, while the Colliniar types attracted their share of attention and commendation for superior qualities. Messrs Yatman and Huesgen were in attendance.

Mr. F. H. Burgess, not to be outdone, had an excellent exhibit of pictures by well-known ar-

Bausch & Lomb-Zeiss

TESSAR LENS

The Sign of Success

when buying a camera is found in the Tessar Lens. The Lens is the important thing to consider. The cash value of wasted film, plates and chemicals, to say nothing of wasted opportunities will soon make up the difference between the cost of a Tessar lens that will get results under all kinds of conditions and the slower less optically perfect lenses usually furnished with cameras.

The great manufacturers recognize the value of Tessar, hence Kodaks, Premos, Centuries, Hawk Eyes, Graflex, etc. are now supplied with Tessar Lenses.

Insist that the dealer shows you cameras fitted with Tessar Lenses.

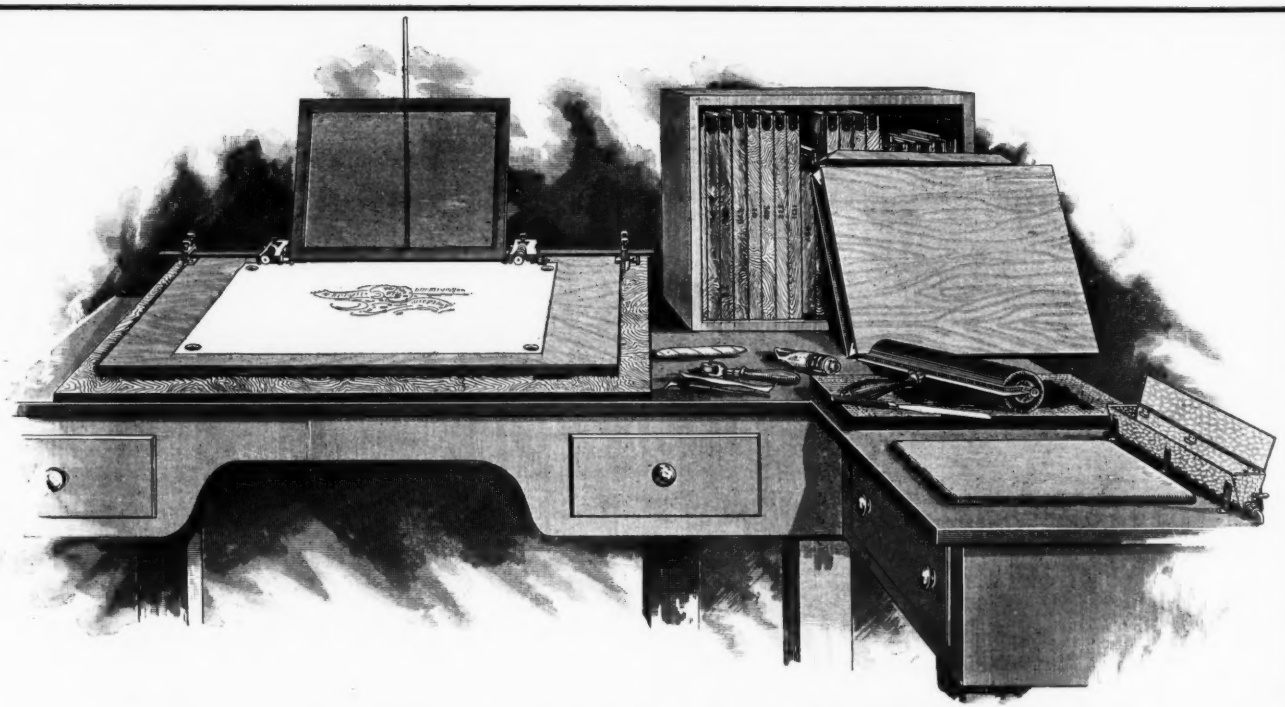
Booklet "Aids to Artistic Aims" on request

Bausch & Lomb Optical Co.

Rochester, N. Y.

NEW YORK BOSTON WASHINGTON CHICAGO SAN FRANCISCO

IN CORRESPONDING WITH ADVERTISERS PLEASE MENTION THE PHOTO-ERA



THE AMERICAN SHADING-MACHINE OUTFIT

AN inexpensive but valuable aid for Photographers, Photo-Engravers, Publishers, Designers and Lithographers to reproduce the photo-processes and hand-drawings. Prints clear and sharp, line, stipple, grain and other effects of tone and texture. Unlimited possibilities in black and white and color-work. Write for booklets.

AMERICAN SHADING MACHINE COMPANY, 150 Mayer Avenue, Buffalo, N. Y.

tists, all produced with lenses made by J. H. Dallmeyer, Ltd.

A new aspirant for honors, in the convention this year, was the Borsum Camera Co., Jersey City, N. J., manufacturers of the Reflex Camera. The new Reflex has been much improved; it is lighter and simpler than ever before, and the sale promises to be large, as was demonstrated at the convention, where Messrs. Borsum and Fiedler made many friends.

G. Gennert was represented by Mr. Z. S. Cantor, with a fine line of goods, including the Hauff products, Imperial plates, backgrounds and Auto developing-tanks.

The firm of Joseph Di Nunzio had a splendid exhibit of prints made on Angelo Sepia Platinum paper. The richness and depth of tone and the simplicity of manipulation of this paper, as shown by demonstrations freely given, were fully appreciated by a large number of photographers and won many new adherents for this sterling product and its genial maker. Mr. Di Nunzio was accompanied by his manager, Miss Dooley, and Messrs. Marshall and Fanning.

Although the Rochester Optical Co. had no exhibit, Messrs. Carbrey, Smith and Robertson attended the convention in order to meet their many friends and old acquaintances.

Mr. F. Harry Hall was at the convention, as usual, for the Berlin Aniline Works, with a complete display of Agfa products, including developers, flash-light powders and plates.

The Anthony & Scovill Co. had a fine display of their well-known and varied products. Messrs. Pelgrift, Topliff, Standbury and Niemeyer were in attendance.

The chief feature displayed by the Defender Photo Supply Co. was a new collodion printing-out paper, called Ampere. The firm was represented by Messrs. Wilmot, Brown, Kuhn, Daly, Palmer, Dodge, Woodward and Ennis.

Other firms well represented at the convention were The A. M. Collins Manufacturing Co., Trier & Bergfield, Taprell Loomis & Co., Rough & Caldwell, Fowler & Slater, The American Stamping & Embossing Co., J. F. Adams, Bridges Manufacturing Co., C. F. Little, W. P. Buchanan, E. F. Foley Co., Ernst Oeser & Co., A. H. Uhrig, Carl Ernst, Chas. E. Coleman, The Photo Card Machine Co., Sweet, Wallach & Co., The Alvord Opaque Co., The Dresden Photo Paper Co. and others.

Among the photographic magazines which were in evidence at the convention were *Wilson's Photographic Magazine*, represented by Mr. T. Dixon Tennant; *The Camera*, represented by Mr. Frank Chambers; *The St. Louis and Canadian Photographer*, represented by Mr. Tony Babb; *The Professional and Amateur Photographer*, represented by Mr. Burton; *Burr McIntosh Monthly*, represented by Mr. Clark Hobart; and the PHOTO-ERA, represented by Mr. Thomas Harrison Cummings.

The Wisconsin Camera Club was fortunate in having Mr. Eduard J. Steichen on the program for Tuesday evening, August 21, at the clubrooms, 623 Grand Ave., Milwaukee, Wis.

Mr. Steichen is spending the summer at Menominee Falls, not far from Milwaukee, and kindly consented to talk on "Pictorial Photography" before the Camera Club. The attendance was larger than ever before, and never before in the history of the club was there a more forcible and entertaining lecture delivered. Mr. Steichen was at his best, and explained the development of pictorial photography from its beginning to the present period. He compared photography to painting, and the work necessary to become a pictorial photographer to the work necessary to become a painter. Mr. Steichen had on exhibition at the club a generous collection of his work, and has kindly consented to honor the club with some of his work, this exception to his usual iron-clad rule being made only because of his love for his native city and the pleasure it gave him to be of some help to Milwaukee's enterprising Camera Club. After the lecture an informal reception was held so that Mr. Steichen's old friends might renew their acquaintanceship, and the club members might meet him.

The club membership is now over one hundred, and the House Committee is making arrangements for a number of improvements in the rooms to meet the demands of the increased membership.

Recent excursions to Waukesha Beach and to the famous Dells of Wisconsin were well attended.

The Print Committee has decided to have quarterly general competitions, and a loving-cup will be purchased as first prize, to be given at the end of the club year.

Arrangements have been made for an exchange of prints and lantern-slides with the Chicago Photographic Society.

Other clubs wishing to arrange similar exchanges with the Wisconsin Camera Club should communicate with the secretary, Bernard C. Roloff, No. 810 Pabst Bldg., Milwaukee, Wis.

A very interesting booklet, "Hauff on Modern Developers," has just come to us from G. Gennert, 24 East Thirteenth St., New York City. While devoted to the Hauff products, it contains a wealth of information concerning exposure, exposure-tables, development by inspection, tank and factorial development with metol, amidol, ortol, glycin, adurol, hydroquinone, pyrol, and many combined developers which every up-to-date photographer should know about. The price of the book is twenty-five cents.

The Indiana Photographic Art League, which embraces in its membership some of the leading photographers of Indiana, will convene at the Parrot Studio, Fort Wayne, Ind., Oct. 9, 10, and 11, 1906.

At a recent meeting of the Board of Trustees of the Daguerre Memorial Institute it was decided to offer every year a Diamond Medal for the best picture made and displayed at the Annual Convention of the Photographers' Association of Indiana. (Next meeting at Winona Lake, Ind., July, 1907.)

This medal, to be known as the Daguerre Memorial Diamond Medal, will be awarded by the Daguerre Memorial Institute.

The picture winning the Diamond Medal will be published in all the Photographic and Art Magazines of this country, and the maker will be given due credit.

In addition, the Institute will give a certificate of special distinction to all whose work is accepted to adorn the walls of the Daguerre Memorial Institute.

We now have a collection of photographs valued at over two thousand dollars, and expect to increase it to twenty thousand dollars within a few years.

Will you not begin now to make that one picture? Further information will be given by either of the Trustees.

Board of Trustees: George J. Parrot, President, Fort Wayne, Ind.; Chas. Neiswanger, Muncie, Ind.; George Graham Holloway, Secretary, Terre Haute, Ind.

The second series of exhibitions at the Little Galleries of the Photo-Secession will begin November 1. The first exhibition is to be devoted entirely to members' work. Every member has the privilege of having at least one print hung. It is preferred that prints be unframed, but mounted on mounts 14 x 22 inches; these conditions are not compulsory. Send prints intended for this exhibition by mail or express, prepaid, to PHOTO-SECESSION, 291 Fifth Avenue, New York, N. Y., on or before October 15.

This exhibition will be followed by monthly exhibitions of American and foreign work.

From William Butler, 20 Crosby Road, Southport, England, we have received a most interesting booklet describing the new Swincam camera-stand, which sets at defiance all the limitations of the ordinary tripod which have been so keenly felt by serious workers, particularly those dealing with specialized photography, such as naturalists, architects, surveyors and engineers. Each leg of the tripod is attached to the head by a kind of universal joint, and these permit of the camera being placed in any desired position after the legs have been firmly planted. It will be found in practice that, once the simple manipulation is learned, the lens can be pointed directly downwards, upwards or at any angle. It is, in fact, a veritable contortionist among tripods. Also, in taking interiors, the camera can be placed close up in a corner or flat against a wall, where the ordinary tripod is useless. The pointed ends of the legs are adjustable to angles of 90° and 45°, thus enabling the worker to get a firm hold, no matter how much splayed the legs may be. Another useful feature, particularly in natural-history work, is the extension pieces by means of which the height of the tripod can be increased by one half very quickly. The head need not be detached, but folds flat with the legs,— a point which will be appreciated by motorists and cyclists who do not care to spend time on the road in putting a tripod together. The instrument is beauifully made, by no means heavy, and forms a distinct adjunct to the equipment of any practical photographer.

The Eastman Kodak Company of New Jersey. — The usual quarterly dividends of 1½ per cent (being at the rate of 6 per cent per annum) upon the outstanding Preferred Stock, and of 2½ per cent (being at the rate of 10 per cent per annum) upon the outstanding Common Stock, have been declared payable, on Oct. 1, 1906, to stockholders of record at the close of business on Aug. 31, 1906.

PHOTOGRAPHIC PROBLEMS
WITH SOLUTIONS BY PRACTICAL MEN

UNDER this heading we insert questions of a practical character relating to photography, preferably the technical side. For each suitable question which we publish, we offer twenty-five cents. We also give two dollars for every answer we print, our selection to be absolutely free of any prejudice. The answers to any problem should be in our hands within ten days after the same shall have appeared. The replies should deal concisely with the points at issue and not exceed three hundred words in length. In this connection we shall use only the initials of correspondents, whose identity will, on no account, be disclosed. Irrelevant or discursive answers will not be considered.

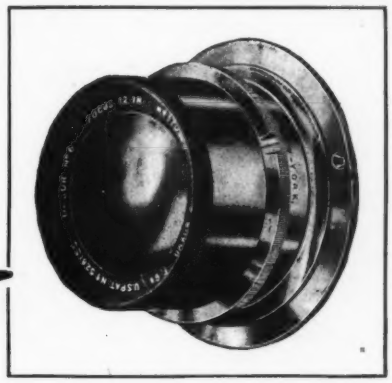
QUESTIONS

What is the best studio light, and why? — C. E. A.

How can the amateur photographer work Aristo paper as successfully as the professional?
— W. F. N.

GOERZ TALK

Number
S I X



Are there Universal Lenses?

The Universal Lens does not exist.

But there are Lenses that are nearer universal than others; Lenses that are far better "all-around" lenses than others.

The GOERZ DAGOR F.6.8 is the BEST lens of that type.

With its enormous covering power, its flat field and brilliant, equal illumination, it will subtend with engraving like sharpness a larger angle than any other lens of equal focal length and of similar construction.

EACH GOERZ DOUBLE ANASTIGMAT DAGOR SUPPLIES:

1. A RAPID LENS for general purposes—Portraiture, Landscape, Architecture, Enlargements, etc., working at FULL APERTURE with extreme sharpness to the edges of the plate for which it is constructed.

2. A WIDE--ANGLE LENS for Interiors and all views at short distances, sharply covering a much larger plate when smaller apertures are employed.

3. A LONG-FOCUS LENS for distant objects, when the back combination alone is used..

Negatives produced with GOERZ DAGOR are perfect in every respect and require no doctoring to yield wonderfully clear and brilliant prints.

There are, besides, many other reasons "why" the very best workers in every conceivable field of photographic activity—process workers, scientists, commercial photographers, professional photographers, pictorialists—all use Goerz Lenses. Our Lens Catalogue tells about it, and gives full particulars about GOERZ LENSES, about our GOERZ-ANSCHUTZ Cameras, Sector Shutter and other apparatus.

We court inspection.

We want you to realize what these lenses actually are, to investigate and ascertain their numerous advantages. We give you a ten days' trial free of charge. Don't be bashful about it. Just send us the name and address of your dealer or write for our Lens catalogue.

C. P. GOERZ OPTICAL WORKS

Union Square, NEW YORK, and Heyworth Building, Chicago

BERLIN PARIS LONDON ST. PETERSBURG

LEPAGE'S GLUES & PASTE

FOR PHOTOGRAPHERS

Put up in jars and in tubes — Dries very quickly — Never discolors the print — Corners will not curl — Put up in bulk for large users.

IF YOUR STOCK HOUSE DOES NOT CARRY LEPAGE'S, WRITE US AND WE WILL SEE THAT YOU ARE SUPPLIED
ACCEPT NO SUBSTITUTE

For Photo-Engravers

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Operated entirely by electricity. No matches, caps, fuse or lamp. Reliable, safe, simple, easily operated and always ready. When attached to a tripod can be operated six feet or more from the flash. It is 10 inches long and 2½ inches square.

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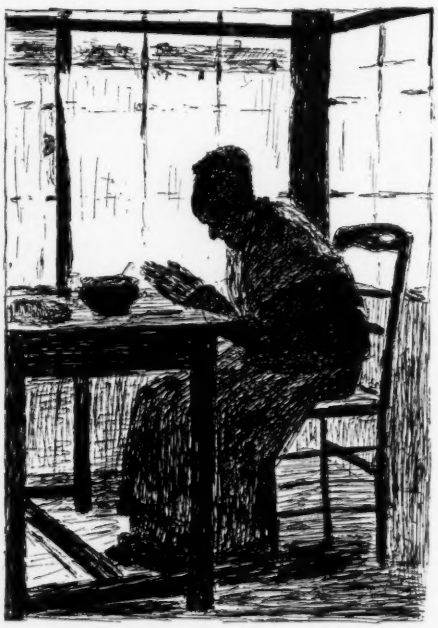

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POSSIBLY the influence of thirty-one years in portraiture may be discerned by the discerning in the designs we show in portrait frames —

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ROCHESTER. N. Y., *The Kodak City.*

The film with the speed of a Seed 27

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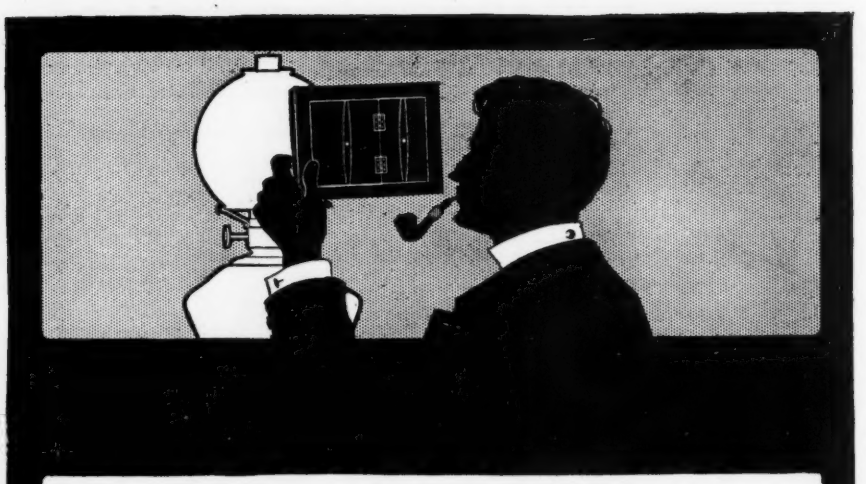
NON-CURLING

The only film classed by experts with the fastest plates.

LOOK FOR *"KODAK"* ON THE SPOOL END.



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The Spare Moment Paper.

Prints at night when it's cool.
There is a Velox for every negative.

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All Dealers. *The Kodak City.*

Eastman Kodak Company
ROCHESTER, N Y., *The Kodak City.*

BUILT LIKE A POCKET KODAK.

The Pocket Kodak model is almost the universal choice for both the touring and stay at home photographer, and to fill the demand for a larger instrument of this type we have produced the No. 4A Folding Kodak making pictures 4¼ x 6½.

Just a trifle too large to warrant the word "pocket," it is nevertheless a marvel of compactness and ingenuity and in every respect is "built like a pocket Kodak."

DEVELOPMENT UNDER DIFFICULTIES.

A recent number of a prominent photographic journal includes an article with the above heading and dilates at length upon the improvisation of a dark-room by removing blankets from beds to tack over windows, the disadvantages of cellars, pantrys and coal holes, and the surprising number of cracks in the average house to let light in.

Information is also given as to what is the necessary outfit for development when touring, and the list is a most formidable one, and after all this the writer remarks, "of course these can only be regarded as make-shifts, and if a negative is developed that *gives promise* of a good picture it should be carefully rewashed and dried again on arrival home."

The amateur working the Kodak way can well afford to smile at the heading of the article, as the Kodak system of daylight loading and daylight development by means of the Kodak Tank Developer removes every possibility of mishap incident to the other methods, and protects the absolute novice from the temptation to experiment, forcing him to produce good results and to rely upon the tank because he soon learns that all the experience necessary is in the Tank.

A NON-CURLING START—AND FINISH.

When we first announced non-curling film every one was interested, and when use proved that it *was* non-curling, every one was enthusiastic.

Having so good a foundation for pictures, we naturally exerted every effort in perfecting and simplifying picture making the Kodak way; daylight development helped a lot, abolishing the dark-room, and making development as easy as loading the Kodak and pressing the button.

Finally we arrived at the last stage—mounting—here was room for improvement, sure enough.

Never did have trouble with the print curling—but paste it on a thin mount—that was different. We are always experimenting—trying to make things better, making radical changes when necessary—this will account for Kodak Dry Mounting Tissue—an entirely different way for mounting prints, and as much better as it is different from the old way.

We tried it in our own printing and developing department—things *have* to be just right there—and we are still using it *exclusively*.

After we had tested Kodak Dry Mounting Tissue in every possible way we introduced it to the public.

We have made picture making by the Kodak system not only daylight all the way but non-curling all the way. Prints will lie flat in absolute contact on any mount, no matter how thin—when mounted with the Kodak Dry Mounting Tissue. Just press with a hot iron, that's all there is to it.

Eastman Kodak Company
ROCHESTER, N. Y., *The Kodak City.*

PERFECTLY GUILTY.

The story is told of a Dutch judge, who, in a trial for murder, rendered the following decision: "Dot book on der law says that ven there iss a doubt you must give him to the brisoner. Now here already there vas no doubt, for it broved vas that the killed man iss alive in jail over by Trexlertown. There iss no doubt. Therefore the law is blain. The brisoner is perfectly guilty. I bronounce him accordingly to be hung by the neck up."

Here is a parallel argument: "15% discount coupon on —— films. These films are so vastly improved on what they were last year and so much better than any other film made, that I am offering, for (30) thirty days, 10 per cent. discount on orders of 1 to 5 rolls, 15 per cent. discount on orders of 6 rolls or more."

The above is the advertisement put out by a dealer. It is hardly necessary to state that the films which are *offered at a cut price because they are so good*, are NOT Eastman films. In fact, Eastman films are not vastly improved over what they were last year. There was no room for vast improvement.

By the way: Only those manufacturers who maintain the quality of their products can maintain the price of their products.

PRESERVING REALITY.

When we come to print up our summer's negatives, it is not always easy to produce a tone that will fully present the reality of the scene as we remember it.

A black and white print some times seems too cold to properly render the summer glow of the afternoon sun on a field of ripened grain, and, again, a paper brown or sepia in tone cannot correctly convey the impression of the snowy canvas of a fleet of yachts racing for the mark.

Here is where the adaptability of Velox comes in, not only a grade and surface to fit every negative, but the original black and white print may be toned sepia in less than two minutes' time by means of Velox Redeveloper. The process of making Velox prints in any tone is so simple that even the beginner cannot help securing good results.

The Velox Book, a most complete manual for the guidance of the Velox printer, is just from the press.

Your dealer will be pleased to present you with a copy.

Take the full benefit of Pocket Photography

Make enlargements from your small Kodak negatives with the Kodak Enlarging Camera.

It's simple and inexpensive.

Ask your dealer.